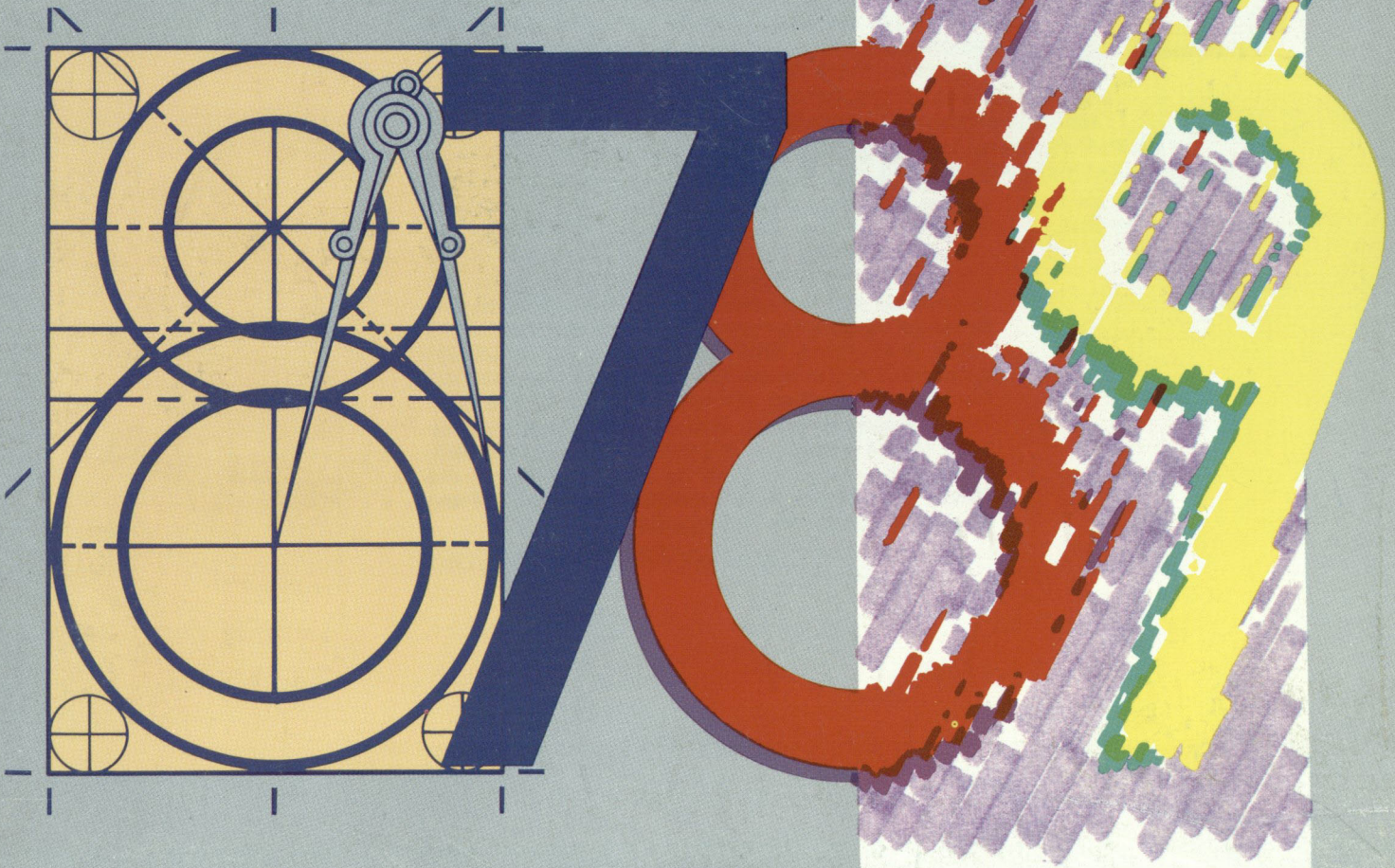




**CALIFORNIA
STATE
UNIVERSITY,
FULLERTON**



1987—1989 University Catalog

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When corresponding with the university, write to the specific office, school or department—

California State University, Fullerton
Fullerton, CA 92634
Telephone information (714) 773-2011

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Effective date: August 24, 1987

California State University, Fullerton

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Accrediting Council on Education in Journalism and Mass Communications

American Assembly of Collegiate Schools of Business

American Chemical Society

American Speech and Hearing Association

Council of Graduate Schools in the United States

National Association for Foreign Student Affairs

National Association of Schools of Art and Design

National Association of Schools of Music

National Association of Schools of Public Affairs and Administration

National Association of Schools of Theatre

National Athletic Trainers Association

National Council for Accreditation of Teacher Education

National League of Nursing

National University Continuing Education Association

Southern California Consortium on International Studies

Teacher Preparation and Licensing

Universities Field Staff International

Western Association of Graduate Schools

Western Association of Schools and Colleges

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The California State University does not discriminate on the basis of handicap *and is in compliance with* Section 504 of the Rehabilitation Act of 1973, as amended, and the regulations adopted thereunder.

More specifically, The California State University does not discriminate in admission or access to, or treatment or employment in, its programs and activities. Rosamaria Gómez-Amaro, Director of Affirmative Action, has been designated to coordinate the efforts of California State University, Fullerton to comply with the act and its implementing regulations. Inquiries concerning compliance may be addressed to this person at California State University, Fullerton, Langsdorf Hall 101, Fullerton, CA 92634, (714) 773-3951.

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The California State University complies with the requirements of Title VI of the Civil Rights Act of 1964 and the regulations adopted thereunder. No person shall, on the grounds of race, color or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program of The California State University.

This Catalog

Within this catalog may be found general academic and administrative information as well as specific descriptions of the departments, their majors and the courses offered in each. The first major part contains orienting information such as the calendar, materials on the California State University, an overview of Cal State Fullerton and facts about student services and activities on the campus.

The subsequent sections of the catalog are concerned with: admission, registration, records and regulations; academic advisement; and university courses. The next sections describe the departments and the programs of study and courses they offer. The final part of the catalog contains a listing of the faculty and administration. An index may be found at the end to help the reader locate specific items.

Because this catalog must be prepared well ahead of the academic year it covers, changes in some programs and rules occur. The class schedule and subsequent errata sheets are the final authority in regard to classes offered, instructors and revisions of regulations. This publication may be bought for a small fee from the Titan Bookstore.

Credits

The California State University, Fullerton, Catalog is prepared under the supervision of the Associate Vice President for Academic Programs and Dean of Graduate Studies, Dennis Berg.

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President's Message

Your interest in California State University, Fullerton comes at an exciting time for the university and those whom it serves. This is an important period of growth and change--the campus is undergoing a major physical transformation as part of its ongoing efforts to improve and broaden service to students and the community.

During the two years that this catalog is in effect, we will have opened our first on-campus residence halls and be well along on completing additional classrooms, laboratories and offices in the Engineering Center.

Adding further to the transformation will be an on-campus hotel/conference center, a gerontology center and a sports complex featuring a multipurpose stadium as well as a baseball pavillion.

Ours is a young, vital university committed to academic excellence and dedicated to serving the citizens of Orange County and the region. Our distinguished faculty of scholars, selected from graduates of the best universities in the nation and the world, is committed first and foremost to teaching, followed by dedication to research, scholarly and creative activity, and service to the community.

Our students, numbering more than 24,000, come from the state, the nation and the world, giving the university an increasingly international flavor. The campus is ethnically diverse and reflects the many different cultures of the region.

We are proud that in the university's relatively short history our curriculum has grown to include 44 undergraduate majors and 41 graduate degrees, plus a variety of credential and certificate programs. The spirit of our campus is warm and friendly, with faculty members actively involved in giving each student the finest academic experience possible.

We care about our students as citizens, as scholars and as human beings preparing to serve society. We hope you will join us soon to share in the challenge and excitement of the Cal State Fullerton experience.

Jewel Plummer Cobb

Jewel Plummer Cobb

President

California State University, Fullerton

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1987-88 Academic Calendar

SUMMER SESSION 1987

June 1,
Monday Instruction begins; registration
and classes.

July 3,
Friday Independence Day Observed—
Campus closed.

August 1,
Saturday Initial period for filing applica-
tions for admission to the spring
semester 1988 begins.

August 21,
Friday Instruction ends.

FALL SEMESTER 1987

August 24,
Monday Academic year begins; advise-
ment, orientation and registra-
tion begin; see class schedule
for details.

August 31,
Monday Instruction begins.

September 7,
Monday Labor Day—Campus closed.

September 9,
Wednesday Admission day—Campus open.

September 24,
Thursday Rosh Hashanah—Campus open.

October 3,
Saturday Yom Kippur—Campus open.

October 12,
Monday Columbus Day—Campus open.

November 1,
Sunday Initial period for filing applica-
tions for admission to the fall
semester 1988 begins.

November 11,
Wednesday Veterans Day—Campus open.

November 26-27,
Thursday-Friday Thanksgiving recess—Campus
closed.

December 11,
Friday Last day of classes.

December 14,
Monday Examination preparation day.

December 15-18,
Tuesday-Friday Semester examinations.

December 19,
Saturday Winter recess begins.

1988

January 4-5,
Monday-Tuesday Winter recess ends; grade re-
ports due.

January 5,
Tuesday Semester ends.

INTERSESSION - 1988

January 4,
Monday Intercession begins.

January 18,
Monday Martin Luther King, Jr. Day—
campus closed.

January 29,
Friday Intercession ends.

SPRING SEMESTER 1988

January 21,
Thursday Semester begins; departmental
and faculty meetings through
Friday, January 22.

January 25,
Monday Advisement, orientation and reg-
istration begin; see class sched-
ule for details.

February 1,
Monday Instruction begins.

February 12,
Friday Lincoln's Birthday—Campus
open.

February 15,
Monday Washington's Birthday—
Campus closed.

March 28,
Monday Spring recess begins.

April 4,
Monday Instruction resumes.

May 20,
Friday Last day of classes.

May 23,
Monday Examination preparation day.

May 24-27,
Tuesday-Friday Semester examinations.

May 28-29,
Saturday-Sunday Commencement exercises.

May 30,
Monday Memorial Day—Campus closed.

May 31-June 2,
Tuesday-Thursday Evaluation days; grade reports
due

June 2,
Thursday Semester ends.

1988-89 Academic Calendar

SUMMER SESSION 1988

May 31,
 Tuesday Instruction begins; registration
 and classes.

July 4,
 Monday Independence Day—Campus
 closed.

August 1,
 Monday Initial period for filing applica-
 tions for admission to the spring
 semester 1989 begins.

August 19,
 Friday Instruction ends.

FALL SEMESTER 1988

August 22,
 Monday Academic year begins; advise-
 ment, orientation and registra-
 tion begins; see class schedule
 for details.

August 29,
 Monday Instruction begins.

September 5,
 Monday Labor Day—Campus closed.

September 9,
 Friday Admission Day—Campus open.

September 12,
 Monday Rosh Hashanah—Campus
 open.

September 21,
 Wednesday Yom Kippur—Campus open.

October 10,
 Monday Columbus Day—Campus open.

November 1,
 Tuesday Initial period for filing applica-
 tions for admission to the Fall
 Semester 1989 begins.

November 11,
 Friday Veterans Day—Campus open.

November 24-25
 Thursday-Friday Thanksgiving recess—Campus
 closed.

December 9,
 Friday Last day of classes.

December 12,
 Monday Examination preparation day.

December 13-16
 Tuesday-Friday Semester examinations.

December 17,
 Saturday Winter recess begins.

1989

January 2-3
 Monday-Tuesday Winter recess ends; grade re-
 ports due.

January 3,
 Tuesday Semester ends.

INTERSESSION - 1989

January 3,
 Tuesday Intercession begins.

January 16,
 Monday Martin Luther King, Jr. Day—
 Campus closed.

January 27,
 Friday Intercession ends.

SPRING SEMESTER 1989

January 19,
 Thursday Semester begins; departmental
 and faculty meetings through
 Friday, January 20.

January 23,
 Monday Advisement, orientation and reg-
 istration begin; see class sched-
 ule for details.

January 30,
 Monday Instruction begins.

February 13,
 Monday Lincoln's Birthday—Campus
 open.

February 20,
 Monday Washington's Birthday—
 Campus closed.

March 20,
 Monday Spring recess begins.

March 27,
 Monday Instruction resumes.

May 19,
 Friday Last day of classes.

May 22,
 Monday Examination preparation day.

May 23-26,
 Tuesday-Friday Semester examinations.

May 27-28,
 Saturday-Sunday Commencement exercises.

May 29,
 Monday Memorial Day—Campus closed.

May 30-June 1,
 Tuesday-Thursday Evaluation days; grade reports
 due.

June 1,
 Thursday Semester ends.



The California State University

The individual California State Colleges were brought together as a system by the Donahoe Higher Education Act of 1960. In 1972 the system became The California State University and Colleges and in 1982 the system became The California State University. Today, 18 of the 19 campuses have the title "university."

The oldest campus—San Jose State University—was founded as a Normal School in 1857 and became the first institution of public higher education in California. The newest campus—California State College, Bakersfield—began instruction in 1970.

Responsibility for The California State University is vested in the Board of Trustees, whose members are appointed by the governor. The trustees appoint the chancellor, who is the chief executive officer of the system, and the presidents, who are the chief executive officers on the respective campuses.

The trustees, the chancellor and the presidents develop systemwide policy, with actual implementation at the campus level taking place through broadly based consultative procedures. The Academic Senate of The California State University, made up of elected representatives of the faculty from each campus, recommends academic policy to the Board of Trustees through the chancellor.

Academic excellence has been achieved by The California State University through a distinguished faculty, whose primary responsibility is superior teaching. While each campus in the system has its own unique geographic and curricular character, all campuses, as multipurpose institutions, offer undergraduate and graduate instruction for professional and occupational goals as well as broad liberal education. All of the campuses require for graduation a basic program of "General Education-Breadth Requirements" regardless of the type of bachelor's degree or major field selected by the student.

The California State University offers more than 1,500 bachelor's and master's degree programs in some 200 subject areas. Nearly 500 of these programs are offered so that students can complete all upper-division and graduate requirements by part-time late afternoon and evening study. In addition, a variety of teaching and school service credential programs are available. A limited number of doctoral degrees are offered jointly with the University of California and with private institutions in California.

The Consortium of The California State University draws on the resources of the 19 campuses to offer regional and statewide off-campus degree, certificate and credential programs to individuals who find it difficult or impossible to attend classes on a cam-

pus. In addition to Consortium programs, individual campuses also offer external degree programs.

System enrollments total approximately 325,000 students, who are taught by a faculty of 19,100. In 1983-84 the system awarded over 50 percent of the bachelor's degrees and 30 percent of the master's degrees granted in California. More than one million persons have graduated from the 19 campuses since 1960.

Consortium of The California State University

The Consortium of The CSU—"The 1,000-Mile Campus"—is a separate, fully accredited, degree-granting entity of the CSU. It draws on the combined resources of the 19 campuses to offer external statewide and regional degree, certificate, and teaching credential programs.

The Consortium was established in 1973 to meet the needs of adults who find it difficult or impossible to participate in regular on-campus programs. Instruction is thus provided students in convenient places at convenient times. Currently, programs are offered in more than 100 sites throughout California.

Full- and part-time CSU faculty, as well as qualified experienced practitioners, go where the students are, or provide opportunities for individualized study. Programs can be tailored to meet the specific needs of employees in business, industry, education or government.

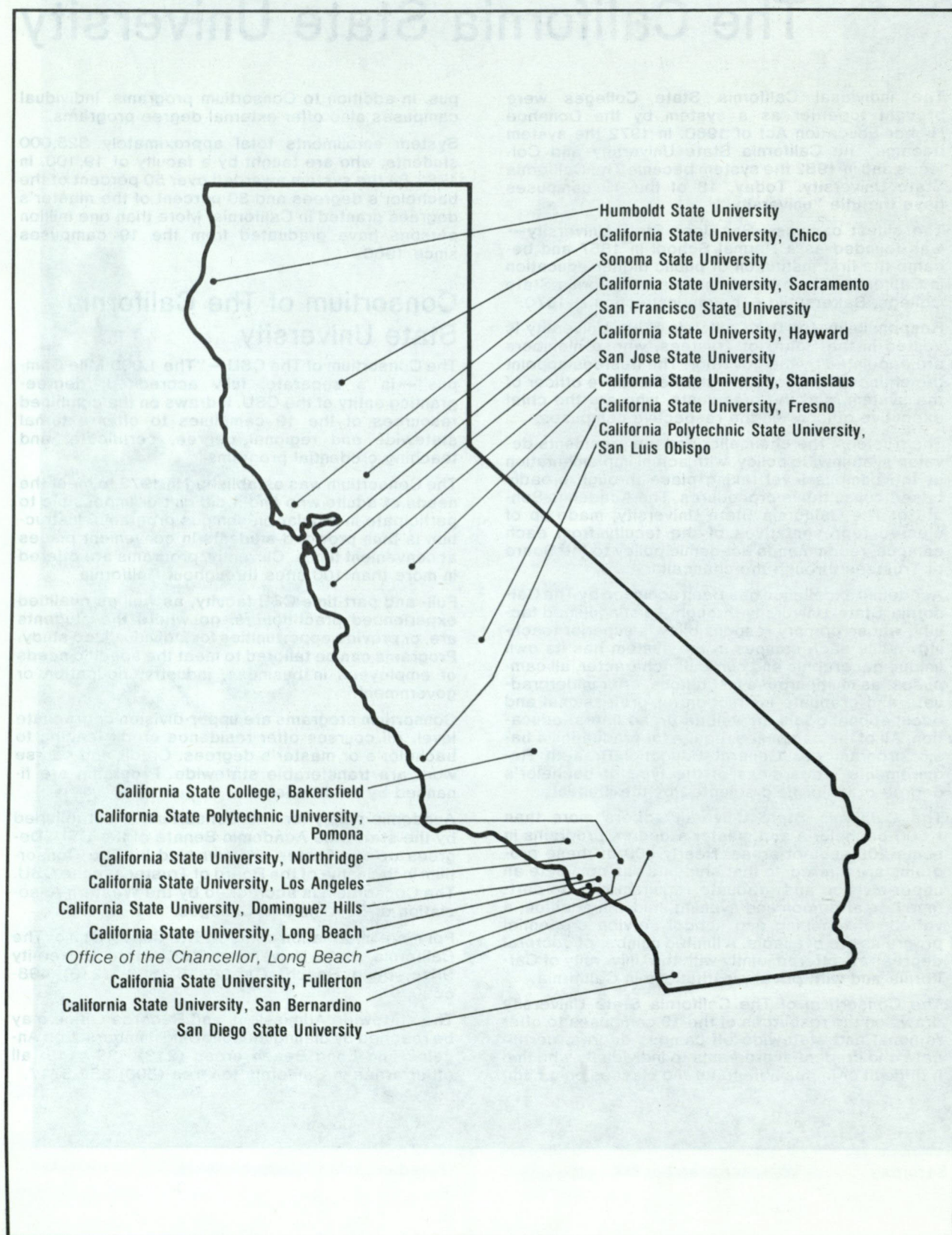
Consortium programs are upper-division or graduate level. All courses offer residence credit leading to bachelor's or master's degrees. Credit and course work are transferable statewide. Programs are financed by student fees.

Academic policy for The Consortium is established by the statewide Academic Senate of the CSU. Degrees or certificates are awarded by The Consortium in the name of the Board of Trustees of the CSU. The Consortium is accredited by the Western Association of Schools and Colleges.

For more information contact: The Consortium of The California State University, 6300 State University Drive, Long Beach, CA 90815-4666; (213) 498-5690.

The statewide Admissions and Records Office may be reached by dialing the following numbers: Los Angeles and Long Beach areas (213) 498-4119; all other areas in California toll free (800) 352-5717.

THE CALIFORNIA STATE UNIVERSITY



Campuses of The California State University

California State College, *Bakersfield*
9001 Stockdale Highway
Bakersfield, CA 93311-1099
Dr. Tomas A. Arciniega, President
(805) 833-2011

California State University, *Chico*
1st and Normal Streets
Chico, CA 95929
Dr. Robin S. Wilson, President
(916) 895-6116

California State University, *Dominguez Hills*
Carson, CA 90747
Dr. Jack Brownell, President (Acting)
(213) 516-3300

California State University, *Fresno*
Shaw and Cedar Avenues
Fresno, CA 93740
Dr. Harold H. Haak, President
(209) 294-4240

California State University, *Fullerton*
Fullerton, CA 92634
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California State University, Fullerton

Governance

Governance on the campus at California State University, Fullerton is the responsibility of the president and her administrative staff. Working closely with the president are a number of faculty and student groups which initiate, review, and/or recommend for approval, various university programs, policies, and procedures. Although the president is vested with the final authority for all university activities, maximum faculty and staff participation in campus decision-making and governance has become traditional. Students also are actively involved, with student representatives being included on almost all university, school, and departmental committees and policy-making bodies.

Advisory Board

The California State University, Fullerton Advisory Board consists of community leaders interested in the development and welfare of the university. The board advises the president on a number of matters, particularly those affecting university and community relations. Members are appointed by the president for terms of four years.

Philosophy and Objectives

Institutions of higher learning disseminate and advance knowledge. The philosophy which guides an institution can limit or promote the successful achievement of these objectives. Therefore, from its inception, Cal State Fullerton has consciously endeavored, through its educational program, to enhance the fullest possible development of those it serves. For both professors and students this entails a commitment to high standards of scholarship, to a comprehensive rather than a narrow approach in major areas of study, and to a concern with research and other creative activity.

The university is committed to provide students with the intellectual skills necessary for their continued personal and professional development, as well as an awareness of human achievement. General education forms one segment of a student's program of study. The other two major segments are courses taken in the major field of concentration, and courses taken as electives. Specifically, the general education program has as its objectives the development in each student of:

- The skills of reading, writing, computing and thinking.
- An understanding of the development of Western civilization.
- An awareness of the content, approaches, and methods of the various disciplines and of the interrelationships of those disciplines.
- An understanding of cultural diversity within our own society and of the cultures of other societies.
- An appreciation of aesthetics through practice or criticism of the arts.

To achieve these objectives the faculty of California State University, Fullerton has established a general education program described under "Graduation Requirements for the Bachelor's Degree."

Retrospect and Prospect

In 1957 Cal State Fullerton became the 12th State College in California to be authorized by the Legislature. The following year a site was designated in northeast Fullerton. It was purchased in 1959, when Dr. William B. Langsdorf was appointed as founding president, the first staff was selected and plans for opening the new college were made. Orange County State College started classes for 452 full-and/or part-time students in September, 1959, using leased quarters for its administrative offices on the Fullerton Union High School campus and for its classrooms at Fullerton's Sunny Hills High School. In the fall of 1960, the college opened classes on its own campus, where it occupied 12 temporary buildings. The name changed to Orange State College in July, 1962, to California State College at Fullerton in July, 1964, to California State College, Fullerton in July, 1968 and to California State University, Fullerton in June, 1972. The first permanent building, the six-story Letters and Science Building (now known as McCarthy Hall), was occupied in 1963.

Today, there are many dramatic evidences of additional, rapid growth. Sixteen buildings or building clusters have been completed, and enrollment has climbed to over 24,000. Since 1963 the curriculum has expanded to include lower division work and many graduate programs.

The Donahoe Higher Education Act of 1960 established the California State Colleges as a system under an independent Board of Trustees, redefined the functions of the State Colleges, and related them to both the community colleges and the University of California system. Cal State Fullerton was the first of the State Colleges to submit and secure approval for a five-year master curricular plan and one of the first three to secure approval of a master building plan. It also was able to think in terms of its ultimate enrollment objectives from the beginning.

On May 26, 1971, Dr. L. Donald Shields, who had served as acting president for seven months, was

appointed the second president of Cal State Fullerton. Dr. Miles D. McCarthy became acting president in January, 1981, and Dr. Jewel Plummer Cobb took office October 1, 1981.

Environment of the University

Fullerton, a city of more than 100,000 inhabitants, is located in northern Orange County, about 30 miles southeast of central Los Angeles. It is part of a new Southern California population center and within easy freeway access of all the diverse natural and cultural attractions of this region.

Orange County, with an area of 782 square miles, is the 48th in size of California's 58 counties, but it is third largest county in population (2.1 million). Orange County has experienced during the last three decades almost unprecedented growth as communities continue to occupy the diminishing expanses of open land.

Today, there co-exists an interesting mixture of the old and new economic and life styles in Orange County. Underneath the soil, archeologists and bulldozers uncover traces of the hunting and gathering Indian bands which flourished at least as early as 4,000 years ago in what was a benign and bountiful region. More visible traces remain of the Spanish and Mexican periods and cultures: Mission San Juan Capistrano, which began the agricultural tradition in Orange County, and subsequent adobes from the great land grants and ranches that followed. Additionally, both customs and many names persist from this period, and so does some ranching. The architectural and other evidences of the subsequent pioneer period are still quite visible: farmsteads, old buildings from the new towns that then were established in the late 1800's, mining operations, and traces of early resort and other types of promotional activities. For about 100 years, farming was the main economic activity with products such as grapes, walnuts, vegetables, and oranges, replacing the older wheat and cattle ranches. Today, agriculture still is very important. Orange County ranks high among California's counties in mineral production with its oil, natural gas, sand and gravel, and clay mining and processing activities.

The extensive development of the 42 miles of beaches in Orange County and the development of such attractions as Disneyland, Knott's Berry Farm, the Laguna Festival of Arts and Pageant of the Masters, the Anaheim Stadium and Convention Center and the Orange County Performing Arts Center continue to make tourism an increasingly important activity. So does the Mediterranean-type climate, with rainfall averaging 14 inches per year, and generally mild days (either freezing or 100-degree temperatures uncommon) with frequent morning fogs during the summer. Both downtown Los Angeles and the Pacific Ocean can be reached by car in half an hour, and mountain and desert recreation areas are as close as an hour's drive from the campus.

The Campus and Its Buildings

Once part of a vast orange grove, Cal State Fullerton's attractively landscaped campus now consists of 225 acres bounded on the south by Nutwood Avenue, on the west by State College Boulevard, on the north by Yorba Linda Boulevard and on the east by the Orange Freeway.

The portion of Orange County immediately surrounding the campus is predominantly suburban; it includes housing tracts, apartment complexes, shopping centers, space-age industrial firms and still-remaining orange groves and undeveloped hills and fields.

Other educational institutions also are part of the immediate environment. The Southern California College of Optometry, with its four modernistic buildings, opened in the spring of 1973. It is just north of Cal State Fullerton. To Cal State's immediate south is Pacific Christian College, a liberal arts school with a Bible emphasis, where students started classes in the fall of 1973. The Western State University College of Law, California's largest law school, occupied its new campus to the immediate west of Cal State in January, 1975.

The Cal State Fullerton campus itself has a high density urban layout of buildings and facilities developed to serve a predominantly commuting public. The university's modern buildings were planned so that no student should need more than 10 minutes to go from one class to another. The campus is surrounded with landscaped parking facilities.

The first permanent building, the Letters and Science Building, was occupied in 1963. This imposing structure, master planned to serve ultimately as a facility for undergraduate and graduate science instruction and research, has been used to house other programs until they could warrant new facilities of their own. This building is now called Miles D. McCarthy Hall.

Since 1963, growth has been rapid. The Performing Arts Center was completed in 1964, the Physical Education Building in 1965, the Library Building in 1966, the Commons in 1967, the Humanities-Social Sciences Building and Visual Arts Center in 1969, William B. Langsdorf Hall (Administration-Business Administration) and the Engineering Building in 1971, the Student Health Center in 1974, the Education-Classroom Building and University Center in 1976, an addition to the Visual Arts Center in 1979, and the Gerontology Center and a student housing complex in 1988. An addition to the Engineering complex should be completed in 1989 as well as a \$6.7 million Sports Complex seating approximately 12,000. A 200-room Marriott Hotel Conference Center will also be available in 1988. Langsdorf Hall and the Engineering Building reflect a commitment to programs with high community involvement. In addition to the many undergraduate students who study and learn in these buildings, many professional engineers and local businessmen also use these very advanced facilities to continue their education.

In the northeast corner of the campus is the Fullerton Arboretum, which was dedicated in the fall of 1979 in a joint venture with the city of Fullerton. It includes a 15-acre contoured botanical garden, a three-acre organic garden and a two-acre experimental plot.

The ecologically arranged flora depicts habitats from the desert to the tropics. The Fullerton Arboretum also includes Heritage House, a 19th-century restored dwelling. Heritage House serves as a cultural museum for North Orange County as well as an Arboretum office.

The ample freeway and surface street accommodations that approach the main entrance to the university's modern campus also provide comparatively easy access to the great and diverse learning resources available in Southern California: many other colleges and universities; museums, libraries, art galleries; zoos; and the wide variety of economic, governmental, social, and cultural activities and experiments that may be found in this dynamic and complex region of California and the United States.

Information concerning the instructional, laboratory and other physical plant facilities which relate to the academic program may be obtained from the Office of Facility Planning and Operations.

Students of the University

Much of the distinctive character and learning atmosphere of any campus comes from the nature and vitality of its students. Diversity, the synthesis of academic with work and family interests, strong achievement records, and relative maturity are some of the predominant characteristics of the student body at Cal State Fullerton.

The university is a commuter institution, with its first on-campus residence under construction starting September, 1986, and scheduled to open in 1988. Nearly half of the students work 20 or more hours per week, and yet 55 percent of all students take 12 or more hours of coursework each semester. The majority of students live in North Orange County, but 10 percent of the new students in Fall, 1986 came from other states (8 percent) or other countries (2 percent). In addition, 30 percent of the new students in Fall, 1986 came from California high schools, and the remaining 60 percent came from California community colleges (34 percent), other Cal State campuses (19 percent), or other California universities and colleges (8 percent).

The student body is 9 percent first-time freshmen, 20 percent other lower division, 54 percent upper division, and 17 percent graduate levels. Fifty-four percent of all students are women. The median age of all students is 23; undergraduates have a median age of 22, while graduate students have a median age of 29. The majority of students take advantage of course offerings during the day and at night, in order to create a workable schedule for their multiple responsibilities.

Many students already have clearly defined interests in a major field of study. Only 9 percent of all students have not yet declared a major, and are in the process of exploring different fields of knowledge. Upon completion of degree requirements, most graduates secure full-time employment (approximately 60 percent), while approximately 10 percent go on to an advanced degree program.

The Faculty

Central to the effectiveness of any institution of higher learning is the quality and dedication of its individual faculty members to teaching and scholarship.

In the fall of 1986 there were 772 full-time faculty and administrators and 641 part-time faculty members teaching on the campus. Almost all the full-time faculty had some previous college or university teaching experience before coming to Fullerton. Faculty members also have a wide variety of experiences and creative activities. A very high percent of the full-time faculty have earned their doctoral degrees, and these have come from more than 100 major colleges and universities.

Criteria for selection to the faculty include mastery of knowledge in an academic specialty, demonstrated skill and experience in teaching, and continuing interest in scholarly study and research. Retention and promotion criteria include service to the university and community.

Information concerning the faculty and other personnel may be obtained from the Office of Faculty Affairs and Records.

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California State University, Fullerton Foundation

The California State University, Fullerton Foundation was established and incorporated as a not-for-profit corporation in October 1959. The Foundation is an auxiliary organization of the university. The Foundation was established to provide essential student, faculty and staff services which cannot be provided from state appropriations; to supplement the program and activities of the university in appropriate ways; and to assist otherwise the university in fulfilling its purposes and in serving the people of the State of California—especially those of the area in which the university is located.

Some of the activities in which the Foundation assists the university are developing and administering research and educational grants and contracts; conducting bookstore, food service and vending operations on campus; accumulating and managing endowment and student scholarship funds; and administering various educationally related functions and special programs and the Tucker Wildlife Sanctuary.

The Foundation's overall policies are administered by a Board of Directors composed of members of the university faculty, administration and students as well as community leaders.

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These five students were first to graduate from Cal State Fullerton (then known as Orange County State College). They are (left to right): Ryland C. Gibbs, Margaret E. Opsahl, Faye Z. Corwin, Shirley L. Saydman and Joseph E. Stephens.

CSUF Alumni

Five students were first to graduate from Cal State Fullerton, becoming the Class of 1960. Since then, over 70,000 graduates have passed through the university.

CSUF alumni have a vested interest in their university. They have been part of its past, belong to its present and are working for its future. Representing those alumni and many affiliates, the Conference of CSUF Alumni consists of the:

Executive Council (11-member governing body)

School of the Arts Alumni Council

School of Business Administration and Economics Alumni Council

School of Engineering and Computer Science Alumni Council

School of Human Development and Community Service Alumni Council

School of Humanities and Social Sciences Alumni Council

School of Natural Science and Mathematics Alumni Council

Chartered departmental, special interest and regional clubs and other alumni groups and affiliates

Inaugurated in November, 1983, the organization serves to advance the university's interests through alumni talents, services, energies and financial assistance to nurture and enhance the academic setting in such a way that students will benefit directly. The group promotes alumni involvement on campus and honors outstanding student, faculty, staff, community and alumni achievement.

Anyone graduating from CSUF with a bachelor's degree, master's degree or a credential is a regular member of the organization. Regular members enjoy tangible benefits such as the quarterly publication (*Titan News*), library privileges, insurance program, various events and discounts. There are also associate, affiliate, honorary and community membership categories.

Call the Alumni Affairs Office for further information.

Community Support Groups

California State University, Fullerton has established close relationships with the community. There are 11 community support groups with approximately 8,000 members who are involved in the life of the university and who support the university in ways that are unique to their particular organization. Each group determines for itself membership criteria, annual membership fees, and its primary goal for university assistance. Further information about community support groups may be obtained from the Office of University Relations and Development located in Langsdorf Hall 805 at (714) 773-2108.

Art Alliance

The Art Alliance provides support programs for the Art Department and Gallery through scholarships for art students; endowment funds; financial support for Main Art Gallery exhibitions and catalogs; and the administration of a docent program.



Inaugurated in November 1983, the Conference of CSUF Alumni commemorated its beginning with this group shot of celebrants: alumni, students, faculty, staff, administrators and special friends.

Continuing Learning Experience

Continuing Learning Experience is an organization of retired and semi-retired men and women who wish to pursue continuous learning in a high-level educational environment. CLE's programs are designed to serve special interest groups and/or respond to special academic needs in the community. Members of CLE were active in raising funds for a Gerontology Center on campus.

Friends of the State University

The Friends of the State University is a group that reaches out to assist Cal State Fullerton. Its members include community leaders, community organizations and businesses, university faculty members and interested individuals. The Friends serves as a channel of communications from the community to the leaders of the university and from the university back to the community. Members provide through their membership contributions financial support for a variety of activities for which other funds are unavailable such as scholarships, faculty research and special equipment. The Friends also honors outstanding professors and students who distinguish themselves through service to the community.

Friends of the Arboretum

Besides contributing annually to the Fullerton Arboretum operating budget, the Friends augments and assists the Arboretum program through a wide variety of volunteer functions. The purpose of the Arboretum is threefold: to create a quiet, esthetic retreat in the midst of a rapidly growing urban area; to provide the university and surrounding communities with a resource for environmental and historical education; and to encourage research and experimentation in horticulture, plant ecology, and the conservation of natural resources.

Music Associates

The Music Associates supports the programs, faculty and students of the Music Department through memberships and fund-raising events.

Parents' Association

The Parents' Association is designed to respond to the needs and interests of the parents of California State University, Fullerton students. The organization sponsors a broad spectrum of activities and educational programs as well as contributing financially to unmet university needs.

Patrons of the Library

The Patrons of the Library is an organization of community leaders, concerned citizens, former students, faculty and staff who generate financial support to sustain the margin of excellence of the university Library. It is a group that is unique among the 19 campuses of The California State University in the quality of its support of library holdings and facilities.

President's Associates

The President's Associates is an organization of dedicated community leaders who are committed to the support of quality higher education. Membership contributions enable the university to initiate and sustain quality cultural and educational programs of both breadth and depth designed to benefit students, faculty and members of the communities served by the university.

Reading Educators' Guild

The Reading Educators' Guild is composed of those who have graduated from California State University, Fullerton with a Master of Science in Education, Reading. The Guild sponsors credit courses and non-credit workshops, has a close working relationship with the Institute for Reading, and promotes research dealing with all aspects of reading.

Titan Athletic Foundation

The Titan Athletic Foundation is a nonprofit organization that exists solely to aid the athletic program at California State University, Fullerton. The Foundation is composed of individuals who have a genuine interest in athletics, the university, and the community and support athletics by providing funds for scholarships that ensure an effective recruiting program.

Tucker Wildlife Society

The Tucker Wildlife Society is made up of community members who donate time and financial support to the Tucker Wildlife Sanctuary in order to provide education programs to Orange County youngsters. Help is also provided to support the wildlife rehabilitation programs. In addition, the Society's board of directors acts as an advisory panel to the sanctuary's operation. More than 6500 volunteer hours are provided to the sanctuary each year to help in reaching out to the community and in carrying out a naturalist training program.

Administrative Officer

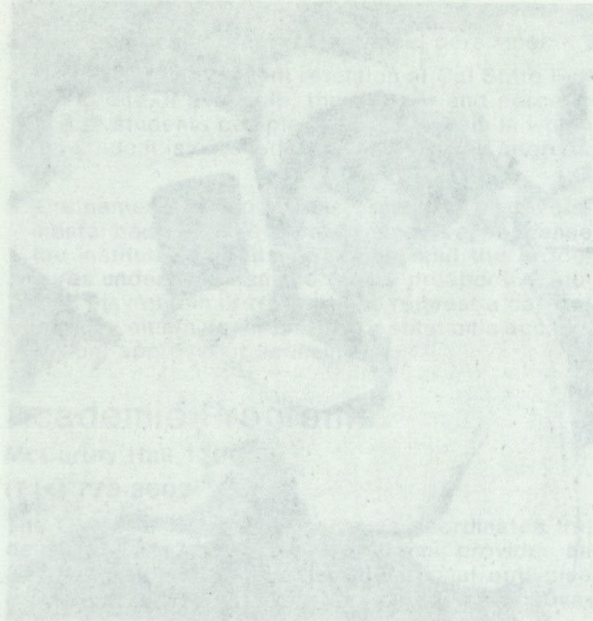
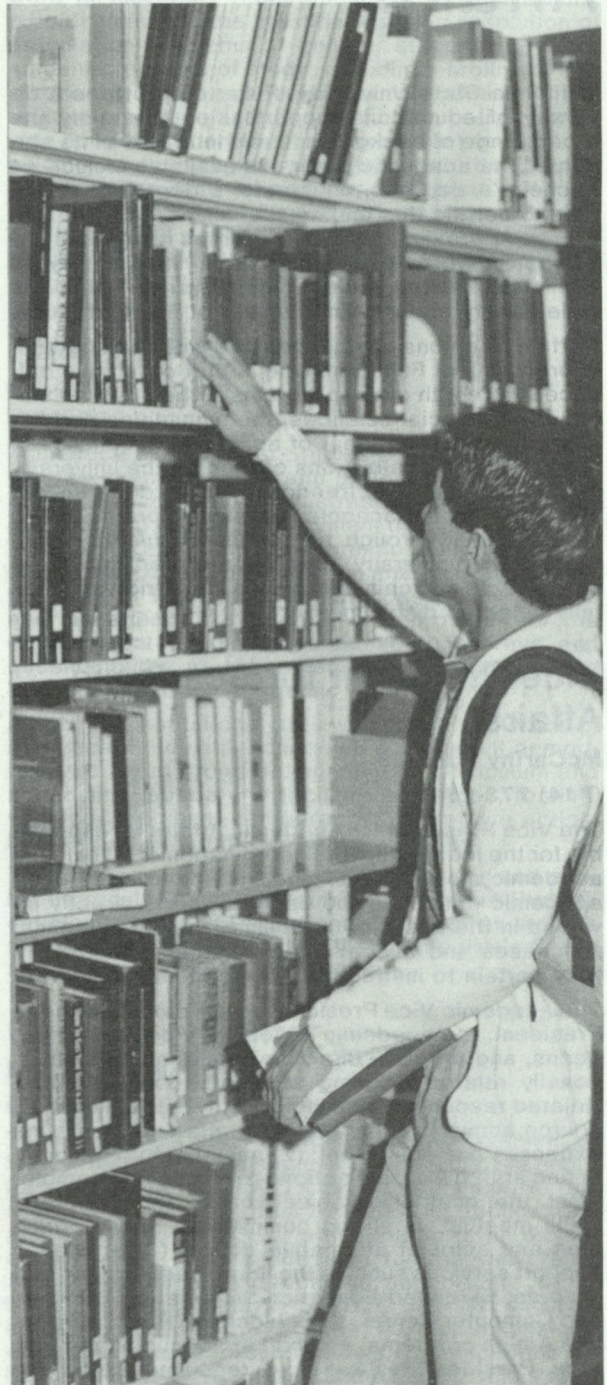
Ann Marie Gallant, Executive Director

*Administrator **Faculty ***Student ****Community Member

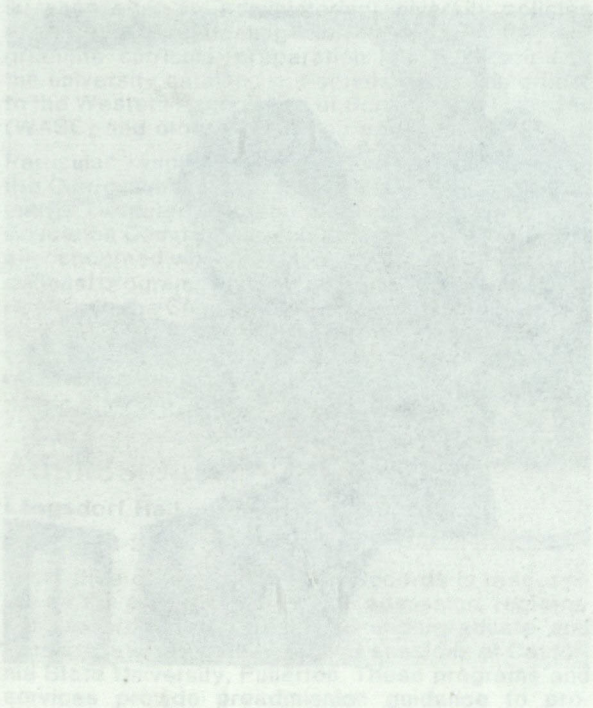
Academic Services

information concerning the academic programs of Cal State Fullerton may be obtained from the Vice President for Academic Programs. Information may include:

1. The current degree programs and other educational and training programs.
2. The instructional, laboratory, and other physical plant facilities which relate to the academic pro-



The Vice President, Academic Programs



Academic Affairs

California State University, Fullerton provides a diversity of educational opportunities to satisfy the broad range of backgrounds and interests of its students. The academic programs available include 44 bachelor's degrees, 41 master's degrees, 41 minors, 5 certificates and 15 teaching credential programs. Approximately 3,000 courses have been developed to provide learning from introductory to highly specialized, in-depth and advanced work in a wide variety and growing number of fields of study.

Certain traditions have developed with the academic programs at Fullerton. One is that of relative balance in strength of the programs in the physical sciences, the social sciences, the humanities and the fine arts. Another is that of academic excellence in the various specializations offered by the university and the comparative freedom given to departments and professional schools to develop programs for their majors. Through the general education program of the university, students are prepared in basic subjects and gain experience in a variety of carefully selected disciplines.

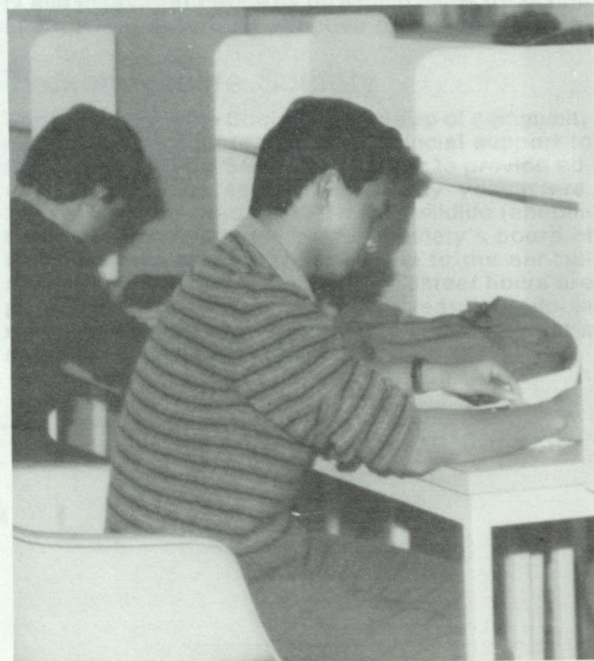
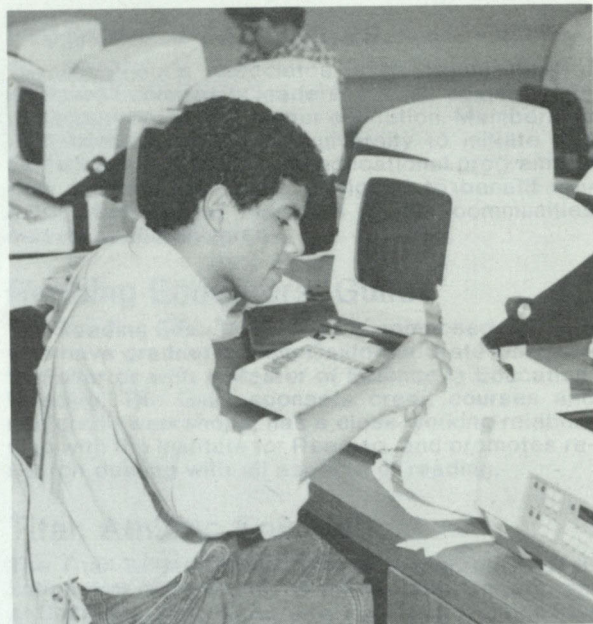
Vice President for Academic Affairs

McCarthy Hall 133

(714) 773-2614

The Vice President for Academic Affairs is responsible for the leadership and coordination of all campus academic matters. The Vice President is the chief academic officer for the campus and is directly involved in the areas of curriculum, faculty personnel processes and budget and resource allocation as they pertain to instruction and academic support.

The academic Vice President works closely with the President, the academic associate vice presidents, deans, and program directors regarding all instructionally related planning and operational matters. Related responsibilities include: (1) instructional resource administration relating to staffing, operating expenses and equipment; (2) assuring that all faculty and staff personnel actions reinforce and complement the qualitative objectives of the university while meeting its strong commitment to the principles and spirit of affirmative action; (3) academic support services such as the library, admissions and records, Extended Education, Information Services and Computer Center, and student EOP and Affirmative Action programs. As chief academic officer, the Vice President reviews and recommends to the President on all faculty and tenure considerations as well as other academic personnel actions as required by university policy.



Information concerning the academic programs of Cal State Fullerton may be obtained from the Office of the Vice President for Academic Affairs. This information may include:

1. The current degree programs and other educational and training programs;
2. The instructional, laboratory, and other physical plant facilities which relate to the academic program;
3. The faculty and other instructional personnel;
4. Data regarding student retention at Cal State Fullerton and, if available, the number and percentage of students completing the program in which the student is enrolled or has expressed interest; and
5. The names of associations, agencies or governmental bodies which accredit, approve, or license the institution and its programs, and the procedures under which any current or prospective student may obtain or review upon request a copy of the documents describing the institution's accreditation, approval or licensing.

Academic Programs

McCarthy Hall 129

(714) 773-3602

The Office of Academic Programs coordinates the development of educational programs; provides an all-university perspective on educational activities at the campus; and stimulates academic innovations.

The Associate Vice President, Academic Programs is responsible for administering university policies and regulations dealing with undergraduate and graduate curricula; preparation and publication of the university catalog; and serves as liaison officer to the Western Association of Schools and Colleges (WASC) and other accrediting agencies.

Particular responsibilities include leadership with the Curriculum Committee, General Education Committee, Graduate Education Committee, International Education Committee and other groups and individuals concerned with changing and improving the educational programs of this institution. Responsibilities relating to the Chancellor's Office include regular review and updating of the Academic Master Plan; coordination of program performance review; and staff reports for the Chancellor's Office relating to academic planning.

Admissions and Records

Langsdorf Hall Lobby

(714) 773-2300

The Office of Admissions and Records is responsible for the administration of the admission, registration, records, and services to undergraduate and graduate students in the regular sessions of California State University, Fullerton. These programs and services provide preadmission guidance to pro-

spective students and current information about the university's curricula and requirements to school and college counselors; admit and readmit students within enrollment categories and priorities; evaluate the applicability of undergraduate transfer credit toward all-university requirements of the curriculum; provide liaison in the identification and resolution of articulation problems of transfer students; register student programs of study, including enrollment into classes; maintain academic records; administer academic probation and disqualification policies; provide enrollment certifications on student request, including transcripts of academic records, to the Veterans Administration and for other purposes; certify the completion of degree and credential requirements; receive petitions for exceptions to academic regulations; and provide information about these programs and services.

Analytical Studies

McCarthy Hall 136

(714) 773-2121

The Office of Analytical Studies conducts and coordinates special studies and projects as may be required by campus administrators and faculty for planning and analysis. Enrollment trends, faculty, demography, recruitment and retention studies, and resource allocation and utilization analyses are among the area of importance for campus policy makers and managers. The Director also provides for the development of and/or response to surveys and questionnaires as requested by the President and Vice President for Academic Affairs.

Among the institutional data with which the Office of Analytical Studies is concerned are student demography, student progress, enrollment, curriculum and scheduling, space and facilities utilization, testing, workload, regional demography, affirmative action, budget and program performance review.

The Office of Analytical Studies produces and publishes regular campus reports such as the Statistical Handbook and Department Profiles, as well as relevant reports required by the Chancellor's Office and other agencies.

Computer Center

McCarthy Hall 38

(714) 773-3921

The Computer Center is located in the basement of McCarthy Hall. The campus has two separate main-frame computers: a CDC Cyber 730-2 with 150 terminal capacity for student time-sharing applications and a CDC Cyber 830-2 which supports all on-line administrative data processing for the University. Also available for instructional support are three PRIME 9750 computers, one DEC PDP 11/44 UNIX computer, and one DEC PDP 11/70. Instructional users have access to such software applications as SPSS-X, SAS, SPICE, BMD, and STRUDL, and a variety of other discipline-specific programming tools.

Students have access to these central computing resources from over 350 micro-computers and termi-

nals connected to the campus data communications network. Open-access satellite labs are located in each building, allowing students convenient computer-related services. Computer workshops are conducted to train and assist students in the proper use of computing equipment.

Extended Education

Building T 14

(714) 773-2611

The Office of Extended Education is responsible for all university program and course offerings not supported by state appropriations. These include summer and intersession, extension courses, adjunct enrollment, travel study programs, contract courses and certificate programs. In contrast to resident programs which require matriculation and a degree objective, most Extended Education programs allow any adult and selected high school student to participate. The primary objective of Extended Education is to augment the regular university offerings and to provide further educational opportunities for all who wish to gain new knowledge and skills or to enhance those already acquired. Courses are taught by regular university faculty, visiting faculty and practicing professionals. All are specialists in their fields. Additional information concerning the Extended Education programs may be found in the Academic Programs section of this catalog.

Graduate Studies

McCarthy Hall 129

(714) 773-2618

The staff of the Office of Graduate Studies assists students in answering questions about admission, academic policies and procedures, graduate programs, financial assistance, student services, and other matters of concern to applicants or graduate students. The office is also responsible for performing an evaluation of student programs at classification and completion of requirements for authorizing award of degree.

The Assistant Vice President for Graduate and International Programs is the appropriate university authority for coordinating and administering all matters related to graduate degree curricula. This position is guided by the policy recommendations of the Graduate Education Committee.

Faculty Affairs and Records

McCarthy Hall 142

(714) 773-2125

The Office of Faculty Affairs and Records is the official repository for documents and correspondence concerning full-time teaching and administrative faculty. It has responsibility for retaining documentation pertaining to employment, reappointment, tenure, promotion, leaves of absence, grievances, disciplinary actions and separations.

Faculty Research

McCarthy Hall 112

(714) 773-2106

The Office of Faculty Research and Development provides assistance to faculty and staff in their efforts to obtain funding for research and other creative activities. The office offers pre-proposal consultation, information about funding opportunities and assistance with budgets, technical design, typing and editing of proposals. It also publicizes and administers intramural research grants. A small library is maintained in LH 112 to aid faculty in identifying grant resources, federal/private announcements and agency/foundation grant profiles.

Television & Media Support Services

Library 80

(714) 773-2621

The Television and Media Support Center, located on the Lower Level of the Library building, includes audiovisual equipment and media distribution, materials design and production and instructional television services.

Audiovisual services for the faculty include the use of audiovisual equipment and materials, and film rental. Conventional classroom AV equipment—motion picture, slide, opaque, and overhead transparency projectors, audio and video tape recorders, and phonographs—are provided. Special purpose equipment and accessories are available. The Film Library Intercampus Consortium (FLIC), a mutual use agreement, allows Fullerton faculty to borrow films from other CSU campuses in the Los Angeles area. (Students may borrow equipment with faculty approval.)

Design and production Services for faculty include assistance in selecting appropriate media for specific course objectives, and the production of media not otherwise obtainable. Graphics of all sorts rendered as overhead transparencies, easel or wall posters, or camera ready copy are available. Photographic slides and prints and motion picture production are provided. Audiotapes are produced, edited, and duplicated, on reel or cassette, for classroom use. Modules incorporating several media (e.g. sound/slide) will be designed and packaged in consultation with requesting faculty.

Personnel of the Center consult with faculty in the analysis of media needs and advise in the procurement or production of materials appropriate for instructional goals and objectives.

Television services include the production of instructional and informational modules for closed circuit distribution on campus or presentation within the classroom or distribution by means of CATV. Videotaping can take place in studio facilities, in the classroom, or at appropriate locations on or off the campus.

Television and Media Support Center staff operate the system which provides university access programming to the CATV companies in Fullerton, Placentia, Anaheim, and Villa Park. While the CSUF Communications Department and the Theatre Department contribute to the cable schedule, instructional programming and operations management are provided by the Television and Media Support Center.

Interactive Televised Instruction is the latest addition to the Center's responsibilities. ITI employs a television broadcast technology known as Instructional Television Fixed Service. An associated audio teleconferencing system permits interaction by students at remote viewing locations with faculty in studio on campus. Students who, for various reasons, find it difficult to meet classes on campus can "attend" and participate in regular university courses by means of ITI.

The University Library

Library 114

(714) 773-2714

Chief among the learning resources on the campus is the University Library. The six-story building located in the heart of the campus houses a collection of well over half a million books and bound periodicals, as well as one and a half million other items including maps, microforms, documents (local, regional, state and federal) and non-print materials such as kits, phonorecords, audiotapes and filmstrips selected through the joint efforts of faculty and librarians to support the graduate and undergraduate programs of the university. In addition to the general collections, supplemental collections designed to support the curriculum and instructionally-related research have been created and developed.

As part of the curriculum, the Library offers courses in bibliographic research; tours and lectures on specialized materials are given at the request of the faculty; and introductory tours of the services and materials are offered at the beginning of each semester. In addition to formal instruction in bibliographic research, the library faculty provide subject-specialized research and reference services.

Materials for required and recommended course-related reading are made available through the Reserve Book Room for limited loan periods. For the user's convenience, several photocopiers and microform reader/printers are available. Other specialized facilities include the music listening rooms, group study rooms, and a microform reading area.

Access to published materials is enhanced through the Computerized Information Retrieval Service (CIRS) on-line reference in conjunction with the Reference Section of the Library. Over 200 different databases are accessible for curricular and research needs. Details on the fees for this service are provided in a guide available at the Information Desk and at the Reference Desk.

The student identification card issued by the university must be validated each semester at the library circulation counter to permit its use as a library card for checking out books. The loss or theft of the student ID, as well as any changes of address, must be reported immediately to the library circulation counter. Library users are responsible for the return of all materials charged out on their ID card; early reporting of a lost ID will reduce the risk of misuse of your card. If there is a need to be absent from the immediate area for more than two weeks, all library materials should be returned. Guides to all library circulation services and fees are available at the information desk.

In addition to the many resources available on campus, mutual use agreements make accessible to students and faculty the library collections of the other 18 libraries of The California State University system, of The University of California campuses nearby (Irvine and Riverside), and of neighboring institutions such as Fullerton College. Interlibrary borrowing arrangements with major university and research libraries throughout the country expand further the research potential for the CSUF community.

Throughout the academic years 1986-87 and 1987-88, the Library will be undergoing extensive expansion and renovation. General information will be available at the information desk on the first floor. Information desk personnel will provide directional assistance as well as a variety of descriptive materials and guides to the building and the collections.

Student Academic Affairs

Academic Advisement Center

Humanities 112

(714) 773-3605

The Academic Advisement Center provides information and guidance in the choice of an undergraduate major, a school of interest, or selection of elective and general education courses. It is the administrative center for undergraduate students who have not declared a major or school of interest. Refer to the *Academic Advisement* section for additional information.

Student Academic Services and University Outreach

Library (lower level) 18

(714) 773-2484

The primary responsibility of Student Academic Services and University Outreach is the recruitment and retention of students at California State University, Fullerton. Inherent to this mission is the strict attention that must be given to increasing the number and graduation rates of underrepresented students. Moreover, the unit is assigned much of the responsibility for coordinating institutional efforts in providing educational opportunity for all students.

The Student Academic Services and University Outreach Office develops and coordinates a comprehensive program of outreach services and activities which assist to make the university more visible, attractive, and accessible to all potential students. A number of programs have been consolidated under this office. These are described on the following pages.

Athletic Academic Services

Physical Education 130B

(714) 773-3057

As an integral part of the CSUF student advising system, the Athletic Academic Coordinator's office provides advisement for student-athletes; provides referrals to campus academic support units; and conducts programs which are designed to assist student-athletes in meeting their academic goals.



Center for Internships and Cooperative Education

Langsdorf Hall 210

(714) 773-2171

The Center for Internships and Cooperative Education was established to formally integrate a student's academic experience and practical work experience with cooperating employers. The Center is the focal point and coordinating office for the initiation, development and expansion of cooperative education. The Internships and Cooperative Education Program offers students an opportunity to expand their knowledge and skills in a "real work" situation which better prepares them to select a career and successfully enter the job market. Through academic study and practical experience, students enhance their academic knowledge, personal development and professional preparation.

An internship or co-op experience is offered as a credit course by the academic department and is under the guidance of a faculty coordinator. Some internships are salaried and consequently assist students to finance their educational expenses.

Educational Opportunity Programs

Library (lower level) 18

(714) 773-2484

The Educational Opportunity Program (EOP) is primarily a "Special Admissions" program available to legal residents of the State of California. EOP is designed to provide information regarding admission, financial assistance, and supportive services to prospective undergraduate students who have potential to perform satisfactorily at the university level, but who might be prevented from doing so because of economic, educational and environmental disadvantages.

EOP gives each of the students individual attention. It uses knowledge of the students' distinctive patterns of social behavior, learning styles, motivations, and aspirations to assist them in realizing their full potentials.

The services offered by the Educational Opportunity Program include: advisement, tutoring, and retention services. These services ensure a progressive rate of student achievement.

Advisement Services

The EOP advisement component, (See Student Academic Services), is one key to the effectiveness of the EOP. Peer mentors, working under the direction of professional staff, serve as important liaisons between each EOP student and the university as a whole. Assistance and guidance are provided to help the student resolve academic, social, financial and personal problems. The EOP component of the Academic Services Center also serves as a referral point to direct students to the appropriate support

services, e.g. Financial Aid, Learning Assistance Resource Center, and Health Center.

Learning Assistance Resource Center (LARC)

Library (lower level) 38

(714) 773-2388

The Learning Assistance Resource Center (LARC), located on the lower level of the Library, offers a wide range of services for students who want to improve their academic skills. LARC services include:

1. *Strategies for Learning classes* to help students learn appropriate study skills while taking general education courses (e.g., history, political science, biological science and chemistry).
2. *General classes* to help students improve their academic capabilities in the areas of study skills, language arts and writing. Special sections of these classes for ESL students are available.
3. *Test preparation classes* to help students prepare for the Entry Level Mathematics Examination, the Examination in Writing Proficiency, the California Basic Educational Skills Test and the Graduate Record Exam.
4. The *Learning Laboratory* which contains self-help programs that students can use independently to learn new skills or to review old skills.
5. Workshops to help students improve their test-taking skills, reduce test-taking anxiety, and deal with stress related to test-taking.

Student Academic Services

Humanities 113

(714) 773-2288

An important component of the Educational Equity Programs (Student Affirmative Action and the Educational Opportunity Program) is Student Academic Services. These support services are designed to facilitate student adjustment, academic achievement and persistence at CSUF. Through individual advisement and guidance, workshops, social activities and a mentor program, students are encouraged toward their educational goals. The center also provides referrals to other appropriate services and is an important liaison between each individual student and various university offices.

The university mentor program is an integral part of Student Academic Services. Because meaningful interactions with university personnel enhance students' academic and other campus experiences, the mentor program involves faculty, staff, and administrators as academic mentors to provide information, assistance and support to ethnic minority and other students. Mentors serve as role models and provide encouragement to the students with whom they work.

Student Affirmative Action

Library (lower level) 22

(714) 773-2086

CORE (Comprehensive Outreach, Retention and Educational Enhancement) Student Affirmative Action (SAA) is part of The California State University's systemwide Student Affirmative Action plan which was mandated by the California Legislature in 1984 under Assembly Concurrent Resolution No. 151. The intent of this resolution was to address the underrepresentation of ethnic minority, women and economically disadvantaged students enrolled in California postsecondary institutions.

At Fullerton, the SAA program focuses on ethnic minority students from underrepresented groups who are academically qualified to meet the system's regular admission requirements. The program's major activities fall into three components: outreach, retention, and educational enhancement.

Outreach Services

In cooperation with the university's outreach office (see University Outreach Services), the outreach component coordinates services and activities to increase the enrollment of regularly admissible ethnic minority students from underrepresented groups to Cal State Fullerton.

High School and community college students seeking admission to the university are provided information on Fullerton admissions' procedures, academic programs and student support services. Students are also provided individual advisement and assistance with application processes and information on financial aid and scholarships. Parents of prospective students are also invited to participate in outreach activities including a parent support group and information workshops which familiarize them with various segments of the university and promote their involvement in the college experience of their offsprings.

The SAA Early Outreach Program works with ethnic minority students from local junior high schools to assist in preparing them to enroll successfully and excel academically in college.

Retention Services

Students enrolled at Cal State Fullerton can participate in SAA retention services and programs (See Student Academic Services) which assist them to make a successful transition to the university, maintain a good academic standing, explore career alternatives and graduate with a chosen degree. These include academic support services, personal and career development activities and social and cultural experiences.

Educational Enhancement

Recognizing that students are more likely to succeed in an environment where they are treated with sensitivity and understanding, the SAA educational enhancement component works with faculty, staff and administrators to create a sensitive and sup-

portive environment for minority and underrepresented students.

University Outreach Services

Library (lower level) 22

(714) 773-2086

The University Outreach Service Office develops and coordinates a comprehensive program of outreach services and activities which assist to make the university more visible, attractive and accessible to all potential students. An overall goal of the office is to increase the enrollment of students at Cal State Fullerton with a special emphasis on students from underrepresented ethnic minority groups.

To accomplish this goal, outreach staff make presentations to high school and community college students, parents and counselors regarding Fullerton admissions procedures (including admission to the Educational Opportunity Program (EOP) and Student Affirmative Action (SAA), academic programs and student support services). Students are also provided individual advisement and assistance with application processes and financial aid procedures.

Special activities including campus tours, financial aid workshops for parents and conferences for high school and community college counselors are also sponsored by the office.

In keeping with the university's commitment to increase the representation of ethnic minority and underrepresented students at Fullerton, special efforts are made to incorporate the unique needs of students in the development and implementation of these all outreach efforts.

Writing Assistance Center

Humanities 511

(714) 773-3650

The Writing Assistance Center provides tutorial assistance primarily for students who are enrolled in English 099, 101, 106, 201 and 301 classes; however, tutors will assist students who seek help in writing papers for other English classes, especially students who need to improve their knowledge of writing and language skills in order to complete their university requirements. The tutors provide individualized instruction adjusted to the learning pace of the student. They attempt to help the student meet both the demands of academic writing and the standards of clear, concise prose.

The staff is trained to work with students who are preparing papers for a course or who need help in interpreting the instructor's comments on a completed paper. They do not proofread nor do they edit papers; rather they offer constructive suggestions designed to help the student master the techniques of proofreading and editing. The tutor's goal is to increase the student's competency, not to improve any given paper. If a student needs intensive work on grammar, the tutor will provide one-to-one tutoring and will introduce the student to a variety of study materials, including written exercises and computer programs.

Honors Programs

Dean's Honor List

Academic achievement is recognized with the publication each semester of a list of undergraduate students whose grade-point averages for the previous term were 3.5 or better. Students are notified in writing when they have earned this distinction. Eligibility is based on a minimum of 12 units of graded course work.

General Education Honors

The General Education Honors Program offers students many of the benefits of education at a small college in the midst of the rich resources of a large university. Courses in the General Education Honors Program provide challenging learning experiences in smaller classes, individualized attention from professors, and closer interaction with other students.

The program also gives students the opportunity to earn recognition for distinguished academic performance in general education courses. Students who successfully complete the requirements for honors in general education will have a notation placed on their transcripts, and will be awarded a certificate of honors upon graduation.

In order to graduate with honors in general education, a student must: complete the university's general education requirements; complete 30 units of general education honors courses; maintain a grade-point average of 3.25 in all general education honors classes.

Honors at Entrance

Honors at entrance are awarded to both freshman and transfer students who have demonstrated outstanding achievement in past academic work. For first-time freshmen with no previous college units earned, a grade point of 3.5 on a four-point scale must be earned in the course work considered for admission to the university. Students who have completed fewer than 56 transferable semester units of credit must meet the grade-point average criteria for first-time freshmen and must also have earned a 3.5 grade-point average on all college work attempted. Students who have completed 56 or more transferable semester units are eligible if a grade-point average of 3.5 is earned in all college work completed.

Honors at Graduation

Honors at graduation for baccalaureate recipients are based on overall performance and have been defined by the Faculty Council in three classifications:

With honors	GPA 3.50-3.74
With high honors	GPA 3.75-3.89
With highest honors	GPA 3.90-4.00



Honor Societies

Chapters of seven honor societies have been chartered at California State University, Fullerton to accord recognition to students who demonstrate superior scholarship and leadership in special academic fields.

Beta Alpha Psi—Encourages and gives recognition to scholastic and professional excellence in the field of accounting.

Golden Key National Honor Society—Promotes and recognizes scholastic excellence among juniors and seniors at CSUF.

Mu Phi Epsilon—Promotes high standards in education and performance in the professional world of music.

Phi Alpha Theta—Serves as a vehicle of recognition for outstanding students in the field of history who are honored at an annual function.

Phi Delta Gamma—Promotes the highest professional ideals among women of the graduate schools.

Phi Kappa Phi—Provides an honor society dedicated to the unity and democracy of education and open to honor students from all departments of American universities and colleges.

Psi Chi—Advances and maintains scholarship in the science of psychology.

President's Opportunity Scholars Program

California State University, Fullerton established the President's Opportunity Scholars Program as a means of recognizing the academic and extracurricular excellence of a select group of students. Its special focus is outstanding students from the current year of high school graduates who are also members of minority groups which are underrepresented in higher education—primarily black and Hispanic students. Scholars receive \$500 per year for four years while maintaining eligibility in the program.

To be eligible for consideration, an applicant must:

- Be a legal resident of California.
- Have a grade-point average of at least 3.2 in all academic subjects for the 10th, 11th and first half of the 12th grades.
- Earn a Scholastic Aptitude Test total score of 900 or higher, or an American College Test composite score of 20 or higher.

- Graduate from high school in the class year preceding the fall semester for which applying. Document significant contributions to school and community activities during the high school years.
- Verify outstanding individual achievement.
- File for admission to Cal State Fullerton before applying for a President's Opportunity Scholars award.
- Submit a completed President's Opportunity Scholars application form and arrange for the Secondary School Report and Description and Evaluation of Student forms to be submitted by the high school principal or a counselor and by a faculty member.

President's Scholars Program

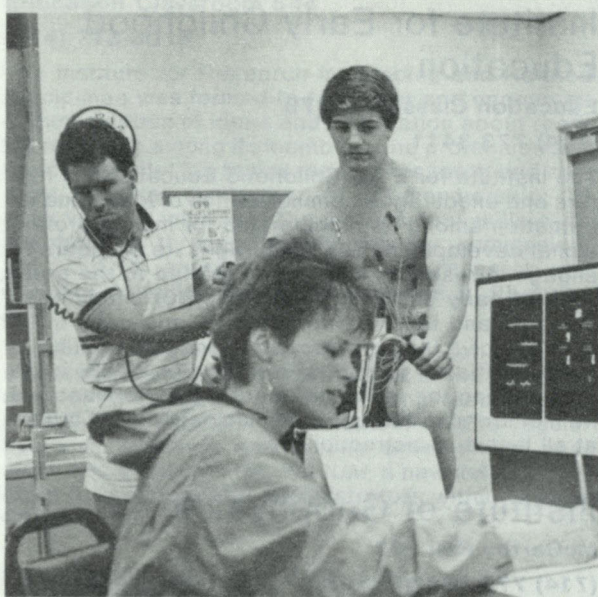
California State University, Fullerton established the President's Scholars Program as a means of recognizing the academic and extracurricular excellence of a select group of students. Funded by the President's Associates, the program began in 1979 with the first 10 President's Scholars. Each year 10 additional President's Scholars are selected with the potential eligibility of all chosen individuals extending for a total of four years. President's Scholars receive \$500 a year.

To be eligible for consideration, an applicant must:

- Be a legal resident of California.
- Present a grade-point average of at least 3.5 in all academic subjects for the 10th, 11th and first half of the 12th grades.
- Earn a Scholastic Aptitude Test total score of 1050 or higher, or an American College Test composite score of 24 or higher.
- Graduate from high school.
- Verify outstanding individual achievement.
- Document significant contributions to school and community activities during the high school years.
- File for admission to Cal State Fullerton before applying for a President's Scholars award. Submit a completed President's Scholars application form and arrange for the Secondary School Report and Description and Evaluation of Student forms to be submitted by the high school principal or a counselor and by a faculty member.

Application forms for both Scholars' Programs are available by telephoning (714) 773-2361 or by writing the Office of Relations with Schools and Colleges, President's Scholars Program, California State University, Fullerton, CA 92634.

Institutes and Centers



California Desert Studies Consortium

McCarthy Hall 236B

(714) 773-2428

The California Desert Studies Consortium consists of seven California State University campuses including Dominguez Hills, Fullerton, Long Beach, Los Angeles, Northridge, Pomona, and San Bernardino. The primary objectives of this consortium are to promote and provide physical and academic support for undergraduate educational programs in a variety of disciplines and to better understand and manage the physical and biological aspects of desert environments. The newly developed CSU Desert Studies Center provides living and laboratory space for over 100 undergraduates at Soda Springs in the Mojave Desert, a location central to all high desert study areas.

Center for Economic Education

Langsdorf Hall 315

(714) 773-2248

The Center for Economic Education is one of many such centers at colleges and universities in the United States working with the National Joint Council on Economics Education and the Economic Literacy Council of California to expand economic understanding. Center programs include services to schools and colleges, individual educators, and the community; research and professional training; and operation of an economic education information center. The center is located in the School of Business Administration and Economics.

Center for Governmental Studies

Education Classroom 424

(714) 773-3521

The Center for Governmental Studies supports research, training and publication which assist governmental, professional and civic groups. It is housed in the Political Science Department and draws upon departmental, community and alumni expertise. The Institute publishes monographs and books, sponsors training programs, and supports theoretical and applied research which are of interest to public policy makers. Institute funds also assist in supporting the teaching mission of the Department.

Center for International Business

Langsdorf Hall 626

(714) 773-2223

The need for an international dimension to business education is underscored by the importance of international business operations to domestic firms and the development of multinational firms and agencies. Equally important is a growing awareness of the diversity among the world's cultures and economies, and an understanding of an unavoidable interdependence between nations. The International Business Center has undertaken to meet these challenges in the international area by developing international business programs with the School of Business Administration and Economics.

Child and Infant Study Centers

Humanities 519

(714) 773-3589

The Child and Infant Study Centers in the Department of Psychology support the research and instructional activities of faculty and students in developmental psychology. Unique opportunities are provided to students in both research training and applied developmental psychology. Programmatic research conducted at the centers include: (1) longitudinal assessment of the relationships between home environment, mental development and school readiness; (2) experimental analysis of perceptual and cognitive abilities; (3) life-span changes in memory and information processing; (4) learning disabilities in children and adults; (5) memory strategy instruction across the life-span; (6) development of cerebral hemisphere specialization; and (7) parent-child computer learning activities.

Field Services and Professional Development Center

Education Classroom 321

(714) 773-2166

The Field Services and Professional Development Center operates through partnership of the Office of Extended Education and the School of Human Development and Community Service. Its major function is to sponsor and facilitate outreach activities in the form of credit and non-credit extended education courses as well as workshops and inservice programs for schools and professional organizations.

Working in partnership with schools, institutions, and community agencies, the Center can provide consultation to help solve existing problems and assist in developing educational programs which meet organizational needs. Services offered by the Center include (1) creating new educational programs to meet current needs, (2) providing qualified consultants on a variety of educational, professional and

human services issues, (3) assisting school districts in developing programs and services that meet legislative requirements, (4) providing credit and non-credit courses, meetings and workshops at convenient locations, (5) co-sponsoring conferences with institutions and agencies, and (6) assisting with applications for state and federal grants related to educational and human service programs.

Institute for Early Childhood Education

Education Classroom 379

(714) 773-3411

The Institute for Early Childhood Education (1) fosters and encourages communication of ideas and information among its membership for mutual professional development; (2) encourages its members to engage in research and writing related to the problems of early childhood education; (3) encourages students and teachers to adopt an approach of inquiry to solve their professional concerns relating to the education of young children; and (4) seeks ways of improving the individual teaching performance of its membership through communication with others at all levels of instruction.

Institute of Geophysics

McCarthy Hall 263

(714) 773-3882

The Institute of Geophysics is an interdisciplinary organization currently comprised of faculty members from the Departments of Geological Sciences and Physics. It was established to foster the communication of ideas and information; encourage interdisciplinary research; and improve instruction in geophysics. Membership is open to all faculty members who are interested in all aspects of geophysics.

Institute for Molecular Biology and Nutrition

McCarthy Hall 580

(714) 773-3624

The purposes of the institute are: (1) to foster and encourage communication of ideas and information among its membership for mutual professional improvement; (2) to encourage students to adopt affiliation with the membership and to adopt an interdisciplinary understanding of their particular areas of emphasis; (3) to foster an active research program on the part of the membership on problems best approached by the integration of chemistry, physics and biology; and (4) to seek ways of improving the individual teaching performance of its membership through interdisciplinary communication at all levels of instruction.

The institute sponsors a series of special seminars devoted to topics in the molecular biological sci-

ences, featuring speakers from its own personnel and from other campuses.

Institute for Research in Reading and Related Disciplines

Education Classroom 544

(714) 773-3015

The Institute for Research in Reading and Related Disciplines was formed to (1) foster and encourage communication of ideas and information about reading research among its members, the profession and the community; (2) foster reading research and creative activities on the part of the membership; (3) seek ways of improving the professional skills of its membership through interdisciplinary communication; and (4) encourage students in research and creative activities under the guidance of its members.

The institute determines a yearly research goal and selects its panel of advisers to aid in the development of these goals by contributing resources or professional expertise. The institute holds regular business meetings and faculty development sessions and publishes the *FORUM*, a newsletter circulated to teachers and administrators within Orange County.

Laboratory of Phonetic Research

Education Classroom 630D

(714) 773-2526

(714) 773-2441

The Laboratory of Phonetic Research is a research and training facility in the Department of Linguistics. It is equipped with electromechanical facilities for the acoustical, psychoacoustical, and physiological study of human speech. Its objectives are twofold:

Instruction. To provide teaching, training and experience to assist the language handicapped.

Research. To provide advanced students and faculty with facilities for research on language function and dysfunction.

Southern California Ocean Studies Consortium

McCarthy Hall 282

(714) 773-3614

The Southern California Ocean Studies Consortium, which consists of six State University campuses (Dominguez Hills, Fullerton, Long Beach, Los Angeles, Northridge, Pomona), participates in training managers and scientists and in educating the general public by coordinating and facilitating marine educational and research activities. It provides facilities

for introducing students to the marine environment or for intensive participation by students pursuing professional programs. The major facility is the R. V. Nautilus (50-foot vessel) which is used by classes and research programs in biology, geology and ocean engineering. In addition the Consortium serves as an educational and research liaison between regions, states and nations.

Sport and Movement Institute

Physical Education 134

(714) 773-3316

The purpose of the Sport and Movement Institute is to promote an atmosphere congenial to research, creative activity, and services concerned with human movement and its related phenomena. Specifically, the organization endeavors to: (1) provide services of evaluation, consultation and advisement; (2) foster and encourage the generation and communication of ideas and information; (3) interpret and facilitate the practical application of research findings; (4) provide opportunities for individuals and community groups to participate in activities of the Institute such as clinics, workshops, seminars, etc.; (5) promote and support research and other scholarly activities on the part of the membership.

Tucker Wildlife Sanctuary

McCarthy Hall 533F

(714) 649-2760

(714) 773-3451

The Tucker Wildlife Sanctuary operates as a non-profit California State University, Fullerton Foundation agency. Located on Modjeska Canyon Road in the Santa Ana Mountains, the sanctuary provides for a program of continuing educational service to the community; a research center for biological field studies; a facility for teacher education in nature interpretation and conservation education; and a center for training students planning to enter into the public service field of nature interpretation.



Student Services and Activities

Adult Reentry Center

McCarthy Hall 33
(714) 773-3899

The Adult Reentry Center (ARC) serves adults who

have been incarcerated and are seeking employment

and training opportunities. The center provides

information and assistance in finding jobs and

training opportunities. The center also provides

information and assistance in finding housing and

transportation. The center also provides

information and assistance in finding health care

and other services. The center also provides

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Student Services

While classroom activity is devoted to the academic development of the learner, Student Services offers programs which support the academic program and simultaneously provide students with services and opportunities for personal growth. Some Student Services programs such as housing and financial aid emphasize their service and educationally supportive roles; others, like counseling, accentuate their developmental aspects. The opportunities offered by the university's Student Services program vary from the traditional social activities to lectures and concerts funded through the Associated Students. Developmental activities include the exploration of personal and vocational life styles and leadership and training.

Student Services are comprised of Academic Appeals, the Adult Reentry Center, the Career Development Center, Financial Aid, Handicapped Student Services, Health and Counseling Service, Housing Services and Residence Life, International Education and Exchange, Testing and Research, University Activities Center, University Center (Student Union), and Women's Center.

Vice President for Student Services

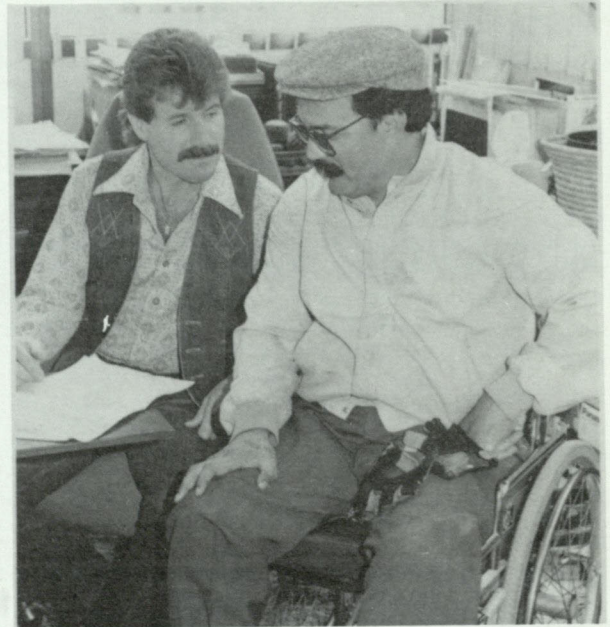
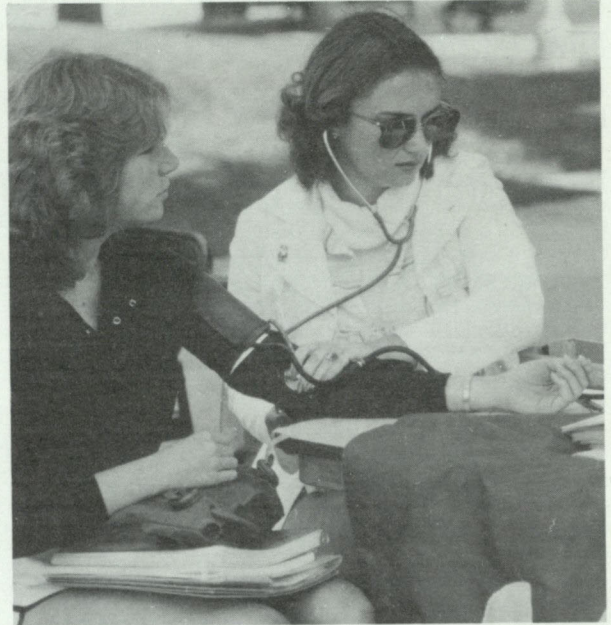
Langsdorf Hall 810
(714) 773-3221

The efforts of all of the Student Services are coordinated and supervised by the vice president for student services. The vice president is responsible for the quality of student life on the campus and works with faculty, administration and students to improve the campus environment. The vice president is assisted by an associate vice president and an assistant vice president. This office is also charged with administering the university's academic appeals procedure and the student disciplinary codes.

Academic Appeals

UC2-43
(714) 773-3211

Students who have grade disputes are encouraged to make every effort to resolve the issue informally by meeting with the instructor and department chair. Students who feel they have been unsuccessful at resolving the issue informally, should contact the coordinator of academic appeals, who will work to resolve the dispute informally and provide information and clarification about university policies. Students are encouraged to contact the coordinator if they have questions about the academic appeals process.



Adult Reentry Center

McCarthy Hall 33
(714) 773-3889

The Adult Reentry Center (ARC) serves adults who, after a break in their education, are considering beginning or continuing their college education. The center provides support and guidance for currently enrolled reentry students and others whose needs differ from those of the traditional university student.

ARC offers a variety of programs which include peer counseling, workshops, support groups and referrals to staff and faculty. The center's counselors and programs can help students and perspective students to clarify their goals and determine if a university education is the appropriate method for attaining those goals. The center also provides information and assistance with university application and registration procedures as well as personal, academic and career counseling. Special programs, groups, workshops, films and discussions which focus on the special needs of reentry students are presented each semester.

Career Development Center

Langsdorf Hall 208
(714) 773-3121

The Career Development Center is structured to meet the wide range of students' career needs and to help explore, develop and realize career plans. The center has designed many programs and services tailored to fit career exploration, planning and employment needs.

The center can help with career planning and research or provide job search skills and employment opportunities. Because the career planning process involves many variables, the CDC draws upon both on and off campus resources. Counselors work closely with employers and on task forces with faculty to develop career programs relevant to educational experiences. Whether a student is just beginning career research or is ready to look for a job, the CDC has counselors and programs that will help define and achieve career goals.

COUNSELING—CDC professionals can help to identify interests, skills and values and their relationship to career opportunities through counseling and vocational testing. In addition to career issues, CDC counselors are trained to assist with personal problems that may be interfering with progress. An individual, confidential appointment can help clarify concerns and develop a plan of action.

SEMINARS AND WORKSHOPS—Group sessions examine topics such as career planning, resume writing, job search techniques, interview skills and other career related subjects throughout the semester. Many of these seminars are designed for specific academic areas. In addition, workshops in personal development and life skills are offered in the center. See the CDC Calendar published every semester for current information.

CAREER RESOURCE LIBRARY—The center has an extensive collection of career search, occupational

and labor market information to help with career research. The library includes books, pamphlets, brochures, as well as audio and video tapes.

PART-TIME EMPLOYMENT—The center has listings of part-time, summer and temporary employment which are received each day from local employers.

CAREER EMPLOYMENT—Counseling, employment listings and recorded job information are available to students and graduates seeking full-time career opportunities. The jobs are found in government agencies, business, industry, manufacturing and service industries.

ON CAMPUS RECRUITMENT—Several hundred employers send recruiters to the CDC each fall and spring to recruit graduating seniors, graduate students and alumni.

EDUCATIONAL PLACEMENT—The center provides complete services for candidates seeking employment in educational institutions including: placement counseling, placement file service, position listings and a published bulletin of administrative openings.

MINORITY SERVICES—The CDC is aware of the career needs of minority students; counselors work closely with employers, clubs and professional organizations to provide services and opportunities that will help meet these needs.

SIGI+ (pronounced "Siggy") is a computer-based System of Interactive Guidance and Information that will help make career decisions. The program will help examine values, explore career options and master decision-making strategies.

CAREER CLASS—Career Exploration and Life Planning (Counseling 252) is a three unit course designed to facilitate career and educational decision making. Specific objectives of the class include increasing awareness of self, the world of work, relationships between college majors and occupations, and job search skills. See the current Class Schedule for further information.

ALUMNI CAREER BANK—The Alumni Career Bank is composed of more than 500 CSUF alumni who have volunteered to share their work experiences with students. Over 100 career areas and nearly every major and program are represented in the bank.

WALK-IN COUNSELOR—Throughout the day a CDC counselor is available to help define career needs and suggest appropriate CDC services. Designed to answer short questions and provide information.

The services of the Career Development Center are available without cost to currently enrolled students. Services are also available to alumni without charge for six months following graduation. After that period, alumni will be charged a nominal fee for certain services.

The university will furnish, upon request, information concerning the subsequent employment of graduates from programs or courses of study which have the purpose of preparing students for a particular

tical career field. This information includes data concerning average starting salary and the percentage of previously enrolled students who obtained employment. The information provided may include data collected from either graduates of the campus or graduates of all campuses in The California State University system. Copies of the published information may be requested from the director of the center.

Financial Aid

McCarthy Hall 63
(714) 773-3125

The purpose of the Financial Aid Office is to provide financial assistance to eligible students. The office administers the following student financial assistance programs:

- California Loans to Assist Students (CLAS)
- National Direct Student Loan
- Guaranteed Student Loan (GSL)
- Pell Grant
- Supplemental Educational Opportunity Grant
- Bureau of Indian Affairs Grant
- State University Grant Program
- Educational Opportunity Program Grant
- College Work-Study Program Grant
- Cal Grant A (State Scholarship)
- Cal Grant B (College Opportunity Grant)
- Graduate Fellowship
- Private Scholarship
- Emergency Loan Fund

For further information concerning financial aid programs available at the university see the Registration Procedures section of this catalog or call the Financial Aid Office.

Handicapped Student Services

Library 113
(714) 773-3117

Handicapped Student Services provides assistance and offers special services to all handicapped/disabled students. The purpose of this program is to make all of the university's educational, cultural, social and physical facilities and programs available to students with orthopedic and/or perceptual handicaps/disabilities. The program serves as a centralized source of information and provides students with individual attention. The professional and support staff are experienced with the particular needs of the handicapped/disabled.

The program works in close cooperation with other university departments in order to provide a full range of services. These services include classroom support services (readers, notetakers, tutors, interpreters for the hearing impaired, alternative testing) counseling, handicapped parking, application assistance and priority registration, academic advisement, career counseling and job-placement, housing and transportation, health services for acute illness and advocacy.

The program also coordinates and provides diagnostic assessment, counseling, advisement, advo-

cacy and supportive services for students with learning disabilities.

The program needs and encourages involvement and input from the students it serves in order to maintain a responsive and quality program.

Information regarding special facilities and services available to handicapped students may be obtained from the Office of Handicapped Student Services.

Health and Counseling Service

Student Health Center
(714) 773-2800

The Student Health and Counseling Service is equipped to care for a wide range of medical problems.

The Health and Counseling Service is staffed by doctors, nurses, laboratory and X-ray technologists, pharmacists and a physical therapist. Most of the doctors are primary care physicians. The staff also includes gynecologists, an orthopedist, a dermatologist, an allergist and a podiatrist. The center has a pharmacy (not for outside prescriptions), a laboratory, an X-ray service, physical therapy, and birth control and nutritional counseling. Students who encounter emotional or personal problems can come to the Counseling and Mental Health Department where psychological counselors and psychiatrists are available for consultation and treatment when needed.

All medical records are confidential; no information will be released without the patient's written permission except in the rare case of a court subpoena.

The cost of care provided by the Health and Counseling Service, except for a few specific fees, has been paid through student fees and by the State of California. Every registered student is eligible for care. The Health and Counseling Service cannot, however, meet all medical needs. Students are urged to obtain health insurance if they do not already have adequate private insurance. A good, inexpensive policy is offered through the Associated Students, Inc.

Housing Services and Residence Life

Library 142
(714) 773-2168

The University will schedule for occupancy, during spring semester 1988, 390 Student Residence Hall apartment suites. This will be the first phase of a two-phase construction program that will eventually house up to 800 students on campus. The suites will house six students in a comfortable, fully furnished spacious setting.

Amenities will include basketball and volleyball courts, outdoor picnic areas and barbecue grills, as well as billiards and ping-pong. As a special feature, each room will be wired for access to the University's main frame computer. A quiet study lounge, weight room, multi-purpose rooms, computer and

typing rooms, as well as washing and drying machines will also be available. Contact the campus Housing Office for further information.

The Housing Office is also ready to assist students in their search for off-campus housing. The office provides information on privately owned and operated off-campus residence halls as well as constantly updated listings of vacancies in local apartment complexes. Bulletin boards are available outside of the housing complex for the posting of cards by students seeking roommates or accommodations. Other bulletin boards highlight rooms for rent in private homes and room offerings in exchange for light duties.

Additional housing information available to students includes a model rental agreement, information on tenant rights and responsibilities, landlord/tenant mediation, and community housing agency referrals.

International Education and Exchange

**McCarthy Hall 79
(714) 773-2787**

California State University, Fullerton is a community of people from many nations and cultures. The Office of International Education and Exchange is dedicated to promoting the exchange of knowledge and experience within the multicultural campus community and with the world at large. The office provides information and assistance for all international students attending CSUF and for U.S. students planning to study abroad.

International Students

Several hundred students from nearly 50 countries study at CSUF as international students, and the staff of the Office of International Education and Exchange endeavors to provide them with a home away from home. The office provides visa eligibility documents, pre-arrival information, and orientation to newly admitted students. The door is always open for students to meet with an adviser to discuss academic concerns, cultural adjustment, immigration matters or just to chat.

Campus activities such as international dinners and discussions occur throughout the year. The office coordinates programs in the Fullerton community, such as the Friendship Families hospitality program.

Study, Work and Travel Abroad

A year or semester overseas can provide an invaluable educational experience. Cultural awareness, language skills and an in-depth knowledge of one's field from an international perspective are but a few of the many benefits of studying abroad. A well planned program offers career advantages with the increasingly multinational and multicultural organizations and communities of southern California.

The California State University International Programs is an academic year program with 25 centers in 15 countries. International Programs participants remain enrolled at CSUF, earn residential credit, and

pay only home campus fees. All personal expenses are the student's responsibility.

Information on the International Programs as well as a general library on study, work, and travel abroad are available in the International Education Office.

Immigrant and Refugee Students

Students who have recently immigrated to the United States are served with various kinds of specialized assistance including orientation programs, student handbooks, and personal advising. University courses as well as informal conversation programs are available for students who wish to improve their English language skills. International Education and Exchange advisors work closely with student organizations to develop new programs to meet students' changing needs.

The goal of immigrant and refugee student programs is to aid new American students as they develop a support network in order to achieve personal and academic success.

School Based Student Services

The school based student services program was developed to broaden services to students in the academic schools and to increase interaction between students, faculty and student services. An assistant dean who specializes in student services is available in most of the schools. The responsibilities of the assistant deans may include, but are not limited to, counseling students with personal and academic questions, assisting student and alumni groups in achieving their goals, referring students and faculty to specific campus resources, and working with orientation and academic advisement programs.

Contact the assistant dean in your school for information about a number of projects and programs which may be of interest to you.

Testing and Research

**Langsdorf Hall 206
(714) 773-3838**

The Testing Center provides a variety of testing and research services to the university.

The center supports the counseling services available through the Career Development Center and the Student Health and Counseling Service by administering a variety of psychological tests designed to help students gain a better understanding of themselves and of their goals and interests. These tests are administered on an individual basis in response to counselor referrals.

The center conducts ongoing research and evaluation of university testing programs and consults with members of the university community regarding the design and conduct of testing-related studies and survey research. The center also designs and conducts surveys of student needs, attitudes, and other characteristics.

National group testing programs related to undergraduate and graduate school admissions and teacher certification are also coordinated by the center. Information on the following tests is available in the center:

American College Test (ACT)
Scholastic Aptitude Test (SAT)
Graduate Record Examination (GRE)
Graduate Management Admission Test (GMAT)
Law School Admission Test (LSAT)
Medical College Admission Test (MCAT)
National Teacher Examination (NTE)
California Basic Educational Skills Test (CBEST)
Test of English as a Foreign Language (TOEFL)
Miller Analogies Test (MAT)

The center also administers other group tests related to CSUF degree requirements. Information on these tests is available in the center:

English Placement Test (EPT)
Entry Level Mathematics (ELM)
English Equivalency Examination (EEE)
Examination in Writing Proficiency (EWP)
Accounting Qualifying Exam (AQE)

Women's Center

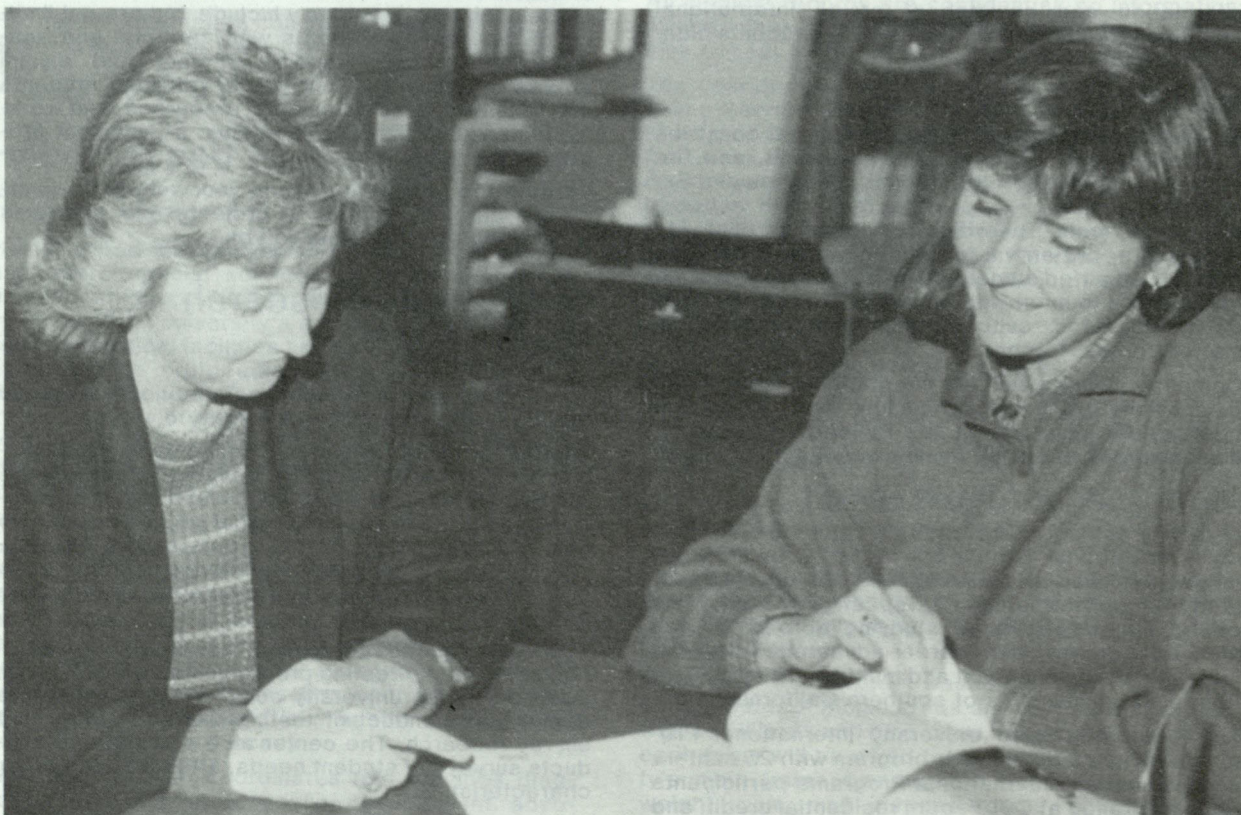
McCarthy Hall 33
(714) 773-3928

A place for all students—young and old, women and men—a place to get help with any problem you may have—a place to study, relax and make new friends—that's what the Women's Center is all about! In short, an excellent center for students to receive support, information and resources to help them explore the many options available to them.

Programs and services include individual counseling, speakers, films, skill-building workshops, growth-oriented support groups, resource information and referrals.

The Women's Center is closely involved with the minor in Women's Studies. The center houses a Women's Studies Library of over 800 books and files with excellent research materials. A listing of film and tape titles round out the collection. The center also gathers and maintains information on local women's events, news and networks.

Although the Women's Center maintains its original purpose of fostering greater awareness of women's issues and concerns, it is open to all interested students. The center's hours are from 8 a.m. to 5 p.m. Monday through Friday.



Student Activities

Opportunities to teach and to learn are not limited to the classroom at California State University, Fullerton. Students taking full advantage of the many educational opportunities find themselves attending lectures, concerts and seminars offered as part of a well-developed co-curriculum on campus. Students not only attend events, but they participate in the planning and implementation of a full slate of activities held throughout the year. Through their participation, students experiment with new interests and broaden their experience with existing interests. Many clubs and organizations exist in the academic disciplines which encourage close contact between students and faculty.

Leadership Opportunities

Workshops and training programs are available to teach and encourage students who may want to learn or refine leadership skills. Practical application of these skills is available through the approximately 200 campus clubs and organizations. Academic and professional organizations are either closely affiliated with academic areas at Cal State Fullerton or have national professional recognition. These groups offer students a chance to identify with faculty and community members who have similar career interests.

Councils and task forces are formed by representatives of other officially recognized organizations. These groups often have a specific purpose or are formed to solve a particular problem.

Cultural organizations seek to present ethnic, minority and cultural programs for the Cal State Fullerton campus. Many opportunities are created for the development of leadership and programming skills in this area because of the diversity of the cultures represented on campus.

Groups representing specific academic departments on campus provide opportunities for students to meet and interact with classmates and faculty outside the classroom atmosphere.

Greek letter fraternities and sororities with national affiliation also exist at Cal State Fullerton. With a choice from twelve fraternities and eight sororities, Cal State Fullerton students can usually find a group with which they want to affiliate. Rush information is available at the University Activities Center.

Many religious organizations have been formed at Cal State Fullerton with representation from a wide variety of religious persuasions. Groups which are predominantly political in nature and those whose goal is service to others also enjoy student support.

Club sports, recreation and leisure groups in a variety of recreational programs are very active on campus. Some are competitive as teams and others offer students a chance to develop individual skills which can be used as lifetime leisure activities.



University Activities Center

University Center 2-43
(714) 773-3211

From New Student Orientation through commencement the University Activities Center serves as a resource for students seeking to develop their management, leadership and organizational skills. New Student Orientation is coordinated by the center and held each semester during the week prior to the beginning of classes. Since orientation is staffed by students, this program is an excellent way for new students to take advantage of training resources and become involved with the university.

Opportunities for involvement in the center's programs are open to all students according to their interests, abilities and time. Staff members at the Activities Center advise many student organizations and are available as resources in the formation of new groups and strengthening existing groups. Workshops on team building, organizational behavior, leadership styles, group dynamics and programming aids are available by contacting the office.

AS Productions

University Center M-17
(714) 773-3501

Entertainment possibilities are endless with Associated Students Productions at CSUF. ASP consists of six committees composed of student volunteers whose common interest is to keep the campus alive with quality entertainment and educational presentations.

Any student can apply to be a program director or assistant director. Candidates for these posts are appointed by the ASI president and are approved by the board of directors. Their responsibilities include planning and implementing programs, managing budgets, and training committee members.

Committee members are student volunteers who attend regular meetings, help in program selection and work at the actual events. Joining a committee is a great way to have fun while learning leadership, communication and organization skills, as well as making a lot of new friends.

Students can join an AS Productions committee anytime during the year by contacting the ASP office.

AS Productions coordinates the film series, lecture series and concert series committees. The film series presents a variety of contemporary, classic and foreign movies to students at a cost lower than that charged by most commercial theaters. The speaker series provides the campus with prominent speakers who create a forum for issues and topics that are of importance to the campus and to the community. Noontime and major concerts provide a showcase of original music ranging from classical to rock. Major concerts are usually held indoors while all noontime concerts are performed at the Soundstage.

Pub entertainment features bands from local nightclubs in the afternoon as well as evening concerts in the University Center Pub.

Special Events offers unique and memorable events such as fairs, theatre groups and other special entertainment.

University Center programming is the events arm of the University Center Board, the governing body of the University Center. This committee brings special events to the University Center in order to promote the use of the building's facilities.

Camp Titan

Camp Titan is a service opportunity for students who enjoy the special feeling that comes from sharing their time with children.

CSUF students devote one week of their time each June to be friends and counselors to 80 to 100 children attending Camp Titan, which is accredited by the American Camp Association.

The children range in age from 7 to 12 years and are selected on a referral basis from community service agencies. Because all of the children are underprivileged, they attend camp at no cost to their families.

Students enjoy a special time of helping these children develop positive attitudes about themselves. The week is as much fun for the counselors as it is for the children.

Students who are interested in a week of hiking, fishing, sitting around a campfire, swimming and spending time with children, can obtain further information about Camp Titan from the University Activities Center.

Departmental Association Council

The Departmental Association Council (DAC) is the organization formed by the Associated Students to represent the academic associations at CSUF. DAC is composed of student delegates who represent all of the academic student organizations within each department. By being a member of his or her own departmental student organization the student is a part of the DAC.

The DAC provides funding for programs originated by member organizations. Student departmental organizations can use DAC funds to provide speakers, films and presentations that enhance the classroom experience.

Individual students can receive funds for use in conducting research. All CSUF students are eligible to apply for such funds.

The DAC provides a forum for discussion of student ideas and concerns. All students are welcome to attend council meetings.

For more information on how to get involved in the DAC, contact the University Activities Center.

Multicultural Council

The Multicultural Council is composed of the student cultural clubs and organizations at CSUF. It provides

funds to student groups that represent ethnic programs and for educational programs that have cultural bases. For more information about the Multicultural Council contact the University Activities Center.

Student Publications

CSUFax is a biweekly newsletter that contains current news about campus events. It is a calendar of the programs and activities of CSUF clubs and organizations. Items for publication may be given to the Fax editor in the University Center. CSUFax is available in distribution boxes throughout campus.

Associated Students

**University Center 2-7
(714) 773-3295**

The Associated Students, Inc. is a campus involvement connection at California State University, Fullerton. ASI offers a variety of learning experiences through its government, programs and services. Many campus special events are the product of student efforts to bring students new educational opportunities, to teach them about the campus, and to provide them a friendly, social atmosphere at CSUF.

ASI is a non-profit corporation supported by the activity fee students pay through registration each semester. By paying this fee, students are automatically a member of the Associated Students, Inc. The purpose of the corporation is to provide academic and co-curricular programs and services for students. When students are involved in ASI they are a part of an energetic, productive group, learning valuable organization and communication skills that can augment their personal and professional growth.

ASI Government

The ASI government controls the actions of the corporation; it is a powerful, active organization that has use for students' talents and skills. To apply for a position or find out more about student government, visit the ASI government office in the University Center.

ASI President and Vice President

The ASI president and vice president are chosen through student elections each spring and manage the corporation and its employees and volunteers. These officers represent students' needs and interests to CSUF's faculty and administration and to the surrounding community. They also participate in several committees. Along with the executive staff, the president and vice president submit recommendations to the ASI Board of Directors on the corporation's annual budget of more than \$4.1 million.

ASI Executive Staff

The executive staff works with the president and vice president to direct the programs and operation of the corporation. All executive staff members are appointed by the ASI president. Students may apply for these positions in the ASI government office.

The ASI controller is the chief financial officer who coordinates the budget process. The chief-of-staff recruits students for presidential appointments and implements special projects. The director of legislative affairs is the CSUF representative to the California State Student Association. This statewide organization influences decisions about education, fee schedules and related topics. The public relations director is responsible for marketing the corporation and communicating with the campus community. Student volunteers are assigned specific duties according to the needs of the corporation.

ASI Board of Directors

The ASI Board of Directors is composed of three directors from each school who are elected to serve one-year terms. The ASI president, vice president, controller and administrator, one faculty council representative and one appointee of the university president also sit on the board. Directors also sit on various board subcommittees and other university committees.

These directors represent the student body and work with the executive staff to implement programs that fulfill students' academic and co-curricular needs. They deal with issues regarding the business and affairs of the corporation, including approving budgets and appointments, authorizing business contracts, and issuing policy statements for administrative purposes.

The weekly meetings of the ASI board are held in the Legislative Chambers in the University Center. All students are welcome to attend. Board seats are open to all students. Election applications are available at the midpoint of each semester in the ASI government office in University Center.

ASI Judicial Commission

The ASI judicial commission decides cases for the Associated Students, Inc. The five justices, who serve staggered two-year terms, make decisions according to the ASI bylaws. Any student can bring a case to the ASI judicial commission.

Child Care Center

**Buildings 200 and 400
(714) 773-2961**

The Child Care Center is sponsored and funded by Associated Students, Inc. For a nominal fee, children aged 3 months through 5 years whose parents are CSUF students, staff or faculty can benefit from the services of the center. Trained preschool teachers offer a comprehensive curriculum which covers learning skills in several areas of education.

Legal Information and Referral

(714) 870-5757

The Associated Students contracts with the College Legal Clinic, a Fullerton-based corporation, to provide information on legal procedures and initial consultation on all types of legal matters. If desired, students are referred to Orange County attorneys for reduced fee services. A 24-hour hot line is maintained by the College Legal Clinic.

University Center

The University Center is located on the northwest corner of campus and provides areas for recreation, relaxation and study. Each semester a portion of student fees helps support the services available there.

University Center Governing Board

The University Center Governing Board establishes operating policies for the University Center. Board members include students, faculty, an alumni representative, administrative representatives and an appointee of the university president. Additionally, the board also evaluates the programs and services of the University Center as well as space allocation and budgetary matters.

Board members are involved in several committees. Among them are the Food Services Committee, Policy Committee, Interior Design Committee and the Future Directions Committee. Any student may apply for a board position.

Main Information Desk

The main information counter of the University Center has the answer to most questions. It's the place to purchase OCTD bus passes and ticket books; tickets for some campus events; receive vending machine refunds; retrieve lost belongings from "lost and found"; and obtain general campus information. In addition, student clubs or organizations can place announcements of coming events on the building's three video screens by filling out the appropriate request form. The nearby ride share board contains the names and phone numbers of people seeking carpool companions for long-distance trips.

The reservation office located behind the information desk provides meeting/event facilities and related services in the UC for student groups, faculty/staff groups, and for the surrounding community. While specific room rental rates vary, some facilities are frequently available at no charge to CSUF chartered student organizations.

Center Gallery

The Center Gallery offers displays of student, graduate and faculty artwork. Exhibits usually feature the work of a single artist and are shown for three weeks. All exhibits are chosen by a student art gallery coordinator.

Leisure Adventure Center

The Leisure Adventure Center offers low-cost workshops and outings to students, staff and the community. The center has presented a variety of workshops in everything from stained glass to photography. Outings have taken participants to the Los Angeles garment district, Solvang, whale watching and the Huntington Library.

Photo enthusiasts may use the Leisure Adventure Center photography lab. Students and community members can pay on a daily fee basis or purchase a semester membership which includes unlimited use of chemicals, equipment and a locker. Art sup-

plies are also available for students who are working on personal or class projects.

Within the Leisure Adventure Center is the Frame Shop, where students can purchase fine art posters, laser design artwork, frames and mattes. The shop offers low-cost custom framing and matting by a professional framer.

The Leisure Adventure Center is located on the lower level of the UC.

Music Listening Room

The Music Listening Room has a living room atmosphere, with soft chairs, bean bag chairs, bright lights for reading, and a counter full of magazines. The Music Listening Room has a wide selection of the latest releases of rock, jazz, classical and country-western music. There also are headsets to listen to one of the many albums that are on cassette tapes.

Pub and Snack Bar

The Pub's congenial atmosphere offers a place to relax where you can enjoy soft drinks, beer and wine, sandwiches, pizza, baked potatoes and other foods. Major sporting events are shown on the Pub's big-screen television, and music is played continuously. The Pub is located on the University Center's lower level. The Snack Bar is located on the main level of the University Center and specializes in a variety of fast foods.

Soundstage

The CSUF Soundstage was built by the Associated Students, Inc. in conjunction with the University Center. The Soundstage, located at the south end of the University Center, is used for noontime concerts, theatre productions and other live entertainment.

Student Typing Center

Aside from the study lounges, the Student Typing Center is the most popular room in the University Center during finals week. By paying a minimum fee at the UC information counter, students may rent an IBM Selectric typewriter to do their papers.

UC Recreation Area

It's mostly fun 'n' games on the lower level of the UC. The recreation area offers a place for diversions that include a lounge with a large screen television, a billiard room, table tennis, video and pinball games, a counter for renting lockers, small table games and the Titan Bowl. The CSUF community is invited to participate in the various bowling leagues and tournaments sponsored each semester.

UC Theatre

The University Center Theatre is available to clubs and organizations for meetings, conference lectures and other presentations. It can be reserved through the reservation office at the information counter.

University Recreation Program

Believing that recreation and leisure pursuits are an integral part of one's total educational experience

and achievement, the Office of University Recreation strives to provide all students an opportunity to use their leisure time wisely in order to attain the highest degree of physical reward and mental relaxation.

The benefits of the recreation program are numerous, and it has been proven time and again, that those who maintain good health and physical fitness, perform better in all aspects of life. These programs are free to all students.

Informal Leisure Recreation

An intensive program of unstructured recreational activities are available to all CSUF students. By presenting a validated, photo ID card, students can participate in the supervised use of numerous facilities including the racquetball and tennis courts, swimming complex, gymnasium and weightroom. These facilities are open seven days a week.

Intramural Sports

The Intramural Sports program is designed for the student who does not have the skill or time to devote

to intercollegiant athletics. This low competitive program offers 59 separately structured sporting events. Activities such as flag football, ultimate frisbee, inner tube water polo, horseshoes, bowling and volleyball are scheduled at various times and days to accommodate individual schedules.

Club Sports

The Club Sports program is for individuals or organizations with similar athletic or recreational interests who wish to compete against other clubs and colleges. Present clubs include rugby, aikido, karate, kung-fu, archery, ice hockey, bowling, skiing, soccer, volleyball, team handball, wrestling and fencing.

Student Family Memberships

Current CSUF students who are married may purchase a recreation membership for their spouse and children (21 years and younger, living at home). Unmarried students living at home may purchase a recreation membership for their parents and siblings (21 years and younger, living at home).



Intercollegiate Athletics

Physical Education 160

(714) 773-2677

Director of Athletics: Ed Carroll

Associate Directors: Steve DiTolla, Leanne Grotke

Academic Adviser: Alison Cone

Coaches

Baseball

Augie Garrido

Basketball

George McQuarn (Men)

Maryalyee Jeremiah (Women)

Cross Country

Jim Stuart

Fencing

Heizaburo Okawa

Football

Eugene Murphy

Golf

Scott Flynn (Men)

Gymnastics

Dick Wolfe (Men)

Lynn Rogers (Women)

Soccer

Al Mistri

Softball

Judi Garman

Tennis

Mike Muscare (Men)

Brad Allen (Women)

Volleyball

Fran Cummings

Wrestling

Dan Lewis

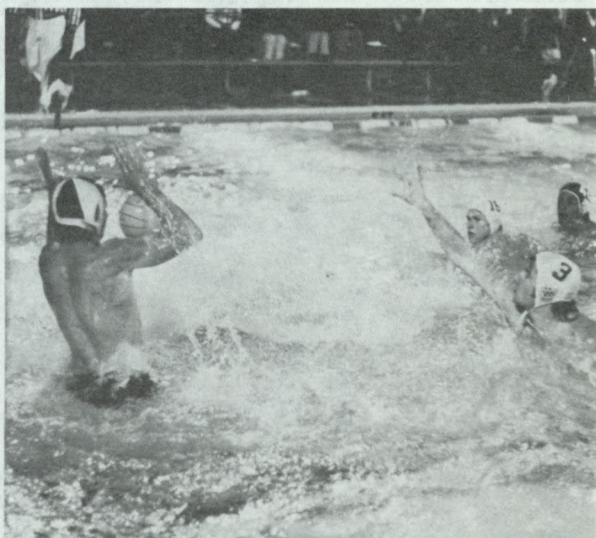
Water Polo

John Kolias

Conference Affiliations and Memberships

National Collegiate Athletic Association (NCAA)—
Men and Women

Pacific Coast Athletic Association (PCAA)—Men
and Women



The rise of academic prestige at California State University, Fullerton has grown alongside the development of one of the nation's premier athletic departments. The inter-collegiate athletic department provides student-athletes the opportunity to compete against the country's finest competition as well as providing a top-notch education. In an effort to ensure academic development, the university provides counseling systems designed specifically for student-athletes. Those services include academic advisement, guidance counseling and daily study halls.

CSUF has also made a commitment to provide facilities that enable fans and athletes alike to enjoy first-rate competition. The long-awaited Youth Sports Complex will give Fullerton fans a much-needed home football stadium. The complex will provide a 10,000-seat football stadium plus upgraded baseball facilities that will seat over 2,000. Already completed are two lit softball diamonds and a lighted soccer field that enable fans to enjoy the university's many night events. Titan Gymnasium already enjoys tremendous popularity among the local community with over 4,000 fans attending home basketball (men and women's), gymnastics (men and women's) and women's volleyball. An outdoor swimming complex, racquetball courts, weighttraining facilities, a high-level gymnastics practice facility plus facilities for wrestling and fencing make the Fullerton athletic complex a step above.

Men's Intercollegiate Athletics

Baseball

Few NCAA Division I baseball programs have enjoyed the degree of success that the Titans have had over the past decade and a half. During that time, the Titans won 11 conference championships, four regional championships and two national championships. Major League stars Tim Wallach (Montreal Expos), Jeff Robinson (San Francisco Giants) and 1984 Olympian Bob Caffrey have developed at Fullerton. Year in and year out the Titans compete against the nation's finest programs and always come out winners.

Basketball

The development of Fullerton basketball has been one of college sports' finest Cinderella stories. Always in contention for the PCAA Championship, the program has produced half a dozen professional prospects. 1984 Olympic Team point guard Leon Wood is one of many fine athletes who has helped develop the Titans into a team that will continue to grow. The university's commitment to basketball ensures that success in the years to come.

Cross Country

Men's cross country is making positive strides. The program competes in the very competitive PCAA conference which is perennially in the spotlight for national attention. The campus and outlying community offer a beautiful setting which enable the sport to set new standards among local and national universities.

Football

If one were going to single out a particular NCAA team that has made the greatest turnaround, the CSUF football team might fall into that bracket. In Gene Murphy's six years, he has taken a perennially hard luck team and turned it into a nationally ranked power. The year 1983 saw the Titans gain their first of back-to-back PCAA championships and a trip to the California Bowl. With the coming of a new on-campus football stadium, Titan football gains the additional exposure that will make them a power for many years to come.

Golf

One of the campus' many developmental programs, Titan golf will definitely make an impact on the local and national scene. The foundation of the program lies with the many outstanding golfers that live in the Orange County area. With the bevy of local talent, Titan golf will be a success story to watch in the future.

Soccer

Soccer is another of Fullerton's many sports where strong coaching has turned the program into a West Coast power. Al Mistri developed one of Southern California's finest soccer programs at Damien High School in Claremont before taking over at Fullerton. Through hard work and support from a summer soccer camp, Coach Mistri has turned Titan soccer into one of the NCAA's most competitive squads. Soccer, like all Titans men's sports, competes in the PCAA along with Fresno State, Nevada-Las Vegas, UC Santa Barbara—all nationally ranked teams.

Fencing

One of the West Coast's few Division I fencing programs gives prospective athletes a chance to train in a traditional, unique sport. The team has enjoyed a great deal of success over the past few years competing against local universities in all areas of the sport including sabre and foil.

Tennis

Tennis has been a consistently popular and successful program in the Fullerton area and that makes Titan tennis a force to be reckoned with in the years to come. The surplus of outstanding local and regional talent make the climb that much easier and will enable Titan fans to look forward to some fine competition.

Water Polo

Playing in the nation's most difficult conference (PCAA) has yet to prevent water polo from being a nationally-ranked program and offers an athlete an opportunity to play against the best. The Titans play and practice in a beautiful on-campus pool against competition that is always in contention for the NCAA championship. With a commitment to water polo from the NCAA, Fullerton's program is sure to enjoy continued success.

Wrestling

Another sport that few West Coast schools support is prospering in Orange County as CSUF proves that hard work and strong coaching can bring success. Prospective athletes will find an atmosphere that is unparalleled among California universities. Top-notch competition and an All-American environment are two reasons why Fullerton wrestling is so successful.

Gymnastics

Fullerton gymnastics have always been one of the NCAA's great success stories. Head Coach Dick Wolfe has won three NCAA championships and countless conference titles in making the Titan team one of the nation's premier units. Numerous All-Americans have competed under Coach Wolfe including Nissen Award candidate Ron Howard. Innovative gymnastics have always been the course of the program as several internationally recognized tricks were devised under Coach Wolfe including the now famous Thomas Flair performed by U.S. Olympian Kurt Thomas.

Women's Intercollegiate Athletics

Basketball

The rise in popularity of women's basketball has its foundations tied to the success of Fullerton women's basketball teams. Under former Coach Billie Moore, the Titans won one of the very first national championships given out in the sport and recent teams have continued to be competitive on a regional basis. Two of women's basketball's greatest names have risen from Fullerton including 1976 Olympian Nancy Dunle and All-American Robin Holmes.

Gymnastics

The consistent efforts of Lynn Rogers' women's gymnastics squad have made them a top-five national power for 12 consecutive years. No other school in the nation has produced more All-Americans or finished in the top three for more years than the Titans. Potential scholar-athletes receive an opportunity to compete and win year round.

Softball

The sport of softball continues to set new standards of excellence on the local and national level. Always a contender for the NCAA title, the Titans captured their first championship in 1986. Coach Judi Gorman's teaching has brought the university countless All-Americans including former Broderick Award winner Kathy Van Wyk. A newly finished on-campus facility now enables an even greater audience to enjoy one of the nation's most successful teams face off against other national powers. The Titans compete in the PCAA against such national powers as Fresno State, UOP, Santa Barbara, Long Beach and several others.

Cross Country

The re-birth of a spring track schedule has been a boon to cross country as athletes in the distance races can now train on a competitive level year-round. An outstanding setting plus the addition of some outstanding athletes make success a very strong likelihood in the years to come.

Tennis

One of the university's many programs on the rise, Fullerton can take advantage of the beautiful climate of Orange County to attract the nation's top athletes to Fullerton. The redevelopment of the tennis facilities in the future make Titan tennis a program that is bound to remain competitive in the PCAA.

Volleyball

Despite playing in one of collegiate volleyball's most competitive conferences, Titan volleyball has proven to be a program on the rise. The obvious attraction of playing against NCAA Championship contenders UCLA, USC and Stanford and in the nation's strongest conference in the PCAA have positioned Titan volleyball as a program on the rise. The acquisition of future athletes, plus the development of budding stars will create an environment that will be hard to beat in the upcoming years.



Resources

Art Gallery

Since 1963 the Art Gallery at California State University, Fullerton has brought to the campus carefully developed art exhibitions that instruct, inspire and challenge the student to the visual arts. Exhibitions of national interest and of museum caliber are presented to the entire student body, faculty and to the community. These act not only as an educational tool but also create interaction between various departmental disciplines and between the campus and the community. In 1970 the Art Gallery was housed in its current permanent location within the Visual Arts Center. In the following years, the gallery has earned national visibility for its program in Museum Studies and Exhibition Design in which museum pre-professionals may obtain both conceptual and practical experience.

Dance Repertory Theatre

The Dance Repertory Theatre was formed in 1981 as a culminating experience for selected students graduating from the Department of Theatre and Dance. It offers recent graduating students in dance an opportunity to perform with a professionally oriented company, preparing them for their careers in dance. Dance Repertory Theatre also permits the university's distinguished dance faculty to continue their professional commitment through public performance. Dance Repertory Theatre members are carefully chosen, based upon their training in ballet and modern dance, to tour a repertory of established and original choreography. The company has toured extensively in southern California.

Daily Titan

Cal State Fullerton's *Daily Titan* is one of the largest college newspapers in California. In recent years, it has become one of the most critically successful, as well.

The *Titan* earned first place among all college dailies in the state in 1985 competition sponsored by the California Intercollegiate Press Association.

The *Titan* is published every Tuesday through Friday throughout the academic year. It is produced, written and edited entirely by Cal State Fullerton students. All its photographic content is the work of CSUF students.

The *Daily Titan* has a daily readership of more than 19,000. It is distributed at more than 40 locations on campus, as well as in newsracks near the University.

Work on the *Daily Titan* provides intensive experience in newswriting, copy editing, page layout and the myriad other functions necessary to produce a modern daily newspaper.



Energy Consortium

The Statewide Energy Consortium was founded in 1975 to help Californians understand and cope with emerging energy situations. The ways in which this has been done include: 1) providing teacher training in energy education for hundreds of teachers throughout the state, 2) developing a very successful program by which faculty from all 19 state university campuses provide technical assistance in energy to both the public and private sectors, and 3) conducting major state and national conferences on various energy themes.

Fullerton Arboretum

The Fullerton Arboretum is a 26-acre botanical garden—a living museum of plants—located at the northeast corner of the campus. It contains local historical artifacts in the Heritage House museum and horticultural collections that attract visitors from the University and the surrounding communities. The Arboretum is an island of serenity in an increasingly urban/metropolitan environment.

The Arboretum offers countless opportunities to study local history and culture. Heritage House is the restored residence and medical office of Dr. George C. Clark, an Orange County pioneer physician. The Clark home was built in 1894 and exemplifies the Eastlake Victorian style of architecture. The house is listed in the National Register of Historic Places and the Inventory of California Historic Sites. It is also an Orange County Historic Site. It is open to the public on Sundays from 2 to 4 p.m., at which time trained docents discuss the period furnishings and memorabilia. Several student projects and studies have used this facility.

The Arboretum grounds contain a recirculating waterfall, pond and stream system that is a focal point for migratory waterfowl and human visitors. Many plants are grown in groups according to their moisture requirements. Others form special collections such as conifers, palms and rare fruits. Special plant displays assist visitors in their selection of plant materials for urban landscaping.

The CSUF Associated Students (AS) helped to initiate the Fullerton Arboretum by contributing \$10,000 in 1971. Since then, the AS have contributed support monies each year to hire students to help in the maintenance and operation of the Arboretum.

The Friends of the Fullerton Arboretum, the community support group, also supplies operating monies, manages the gift and garden shop, propagates plants for plant sales and provides countless hours of volunteer effort in behalf of the Arboretum.

The Fullerton Arboretum is open 8 a.m. to 4:45 p.m., seven days a week. The Arboretum is closed on major holidays and the week between the Christmas and New Year holiday.

Herbarium

The Faye A. MacFadden Herbarium is named after Faye A. MacFadden, who sold her extensive collection of plants to the university just prior to her death in 1964. The collection now includes over 25,000 vascular plants, about 12,000 bryophytes and nearly 800 lichen specimens. The plants are used as a research and teaching tool. The bryophyte collection is reported to be the largest in the Southwest.

Microcomputer Resource Center

The School of Human Development and Community Service has a Microcomputer Resource Center to serve its students, faculty and staff. This center has 15 microcomputers and 2 printers with telecommunication capabilities. The various departments and programs within the school hold many classes in the center to teach numerous applications and uses of computers. The classes also use specific programs to teach and practice concepts related to the content of the subjects. In addition, classes use the center to observe specific demonstrations related to their disciplines. The center has also been used for faculty and staff in-service programs. During the summer children from the community attend classes on computing.

Oral History Program

The Oral History Program offers students a source of information, courses and work experience. The program has conducted over 2,000 interviews on the history of Orange County and other areas of the western United States. Either transcriptions or tapes are available for any student to use as they would use any library materials, at the Oral History Archive.

Most of these interviews were done by students in the several classes offered at the Oral History Program. The program also maintains a student staff through internships, work study or grant-supported positions. These staff receive experience in word-processing, editing, book production and organizational administration. They are credited with authorship or assistance on publications, and several alumni of the program now hold important professional positions.

Orange County Now

Orange County Now is a 30-minute weekly radio public affairs program produced by students in the Radio-TV-Film sequence of the Department of Communications and broadcast on Saturdays and Sundays by several Orange County stations. The program is in the news magazine format and students in the broadcast news class, as well as volunteers, record interviews with newsmakers in Orange County and then edit, write and produce segments that are integrated into the weekly program by a volunteer staff of writers, producer and on-air talent.

Orange County Now has won first place in the California Intercollegiate Press Association in the News Magazine category and segments of the program have won CIPA awards in news and sports categories.

Reading Clinic

The Reading Clinic serves three major purposes. First, it provides a controlled, supervised setting for the training of reading specialists and classroom teachers who wish to improve their skills in working with learning disabled and reading disabled students.

Secondly, the clinic serves as a community service providing very low cost, high quality instruction in reading that is not available elsewhere in Orange County. The clinic works closely with the Southern California College of Optometry in order to provide broader services.

The third purpose of the clinic is to provide parent education to community members whose children have reading disabilities. The clinic provides parent in-service sessions, a hot line for phone information, and a monthly newsletter of information, tips and examples of student work. The clinic is proud of its 16 year service to the university and community.

Speech and Hearing Clinic

The Speech and Hearing Clinic (SHC) is an integral part of the curricular programs of the university leading to a B.A. and M.A. Degree in Communicative Disorders. Since 1961 the Department of Speech Communication has provided speech, language and hearing services to the community in conjunction with its training program for professional speech pathologists. The original clinic held the distinction of being the first institution in California to receive registration under Interim Standards for both speech pathology and audiology by the Professional Services Board of the American Board of Examiners in Speech Pathology and Audiology (ABESPA), which is the accreditation board of the American Speech-Language-Hearing Association (ASHA). The graduate program in Communicative Disorders holds the distinction of being one of only two academic programs in California to maintain continuous accreditation by the Educational Training Board of ABESPA since September 1969.

The clinic is composed of a Speech Pathology Unit, an Audiology Unit and a Communicative Disorders Research Laboratory with special emphasis given to voice disorders. The clinic offers the services of a resident professional Speech Pathologist who holds the Certificate of Clinical Competence (CCC-SP), faculty supervisors who are clinically certified and, in addition, hold doctoral degrees in the field, and student clinicians who have met strictly prescribed standards for admission to clinical practicum. Referrals to the clinic come from a variety of sources including: physicians, teachers, rehabilitative centers, private speech pathologists and audiologists, and self-referrals. Services available at the clinic include: diagnostic evaluations, ther-

apeutic intervention, audiometric testing, rehabilitative audiology including hearing aid evaluations, screening tests for students seeking state credentials, and family counseling relative to problems associated with communicative disorders.

Theatre and Dance Department Productions

CSUF students receive reduced ticket rates to all Theatre and Dance Department productions. Each year, six plays and two dance concerts are produced on main stage along with theatre for children, touring plays, master's thesis productions, playwright workshops and original one-acts. CSUF plays have been selected eight times during the last nine years to be produced at the American College Theatre Festivals, selected out of over 50 production entries. In 1983, its production of *The Bulldog and the Bear* was selected from over 500 production entries to be produced at the National American College Theatre Festival at the John F. Kennedy Center in Washington, D.C.

Titan Shops

Titan Shops is a subsidiary of the California State University, Fullerton Foundation and is the organization that is responsible for the administration of the Titan Bookstore, Food Services and the vending for the university. Titan Shops policy is set by the CSUF Foundation Board of Directors. Titan Shops is administered by the Titan Shops manager.

Titan Bookstore

The Titan Bookstore is located on the ground floor of the Commons Building directly east of the University Center and west of the Library. Its primary function is to service the textbook and school supply requirements of the students of the university. In addition to these items, however, the Titan Bookstore carries an extensive stock of office supplies, greeting cards and clothing items, a trade book department which encompasses 15,000 reference and general interest books, a photocopy center and a gift department with an ever changing selection of items. Finally, the Titan Bookstore is engaged in the sale of personal computers at significant price reductions to encourage the use of computers and development of computer literacy at the university.

Food Service

Titan Shops is responsible for the operation of Food Services on the University campus. Primary Food Service facilities are on the second floor of the Commons (the main cafeteria), on the University Center ground floor (the UC Snack Bar) and at the southeast corner of the campus (McTitan's and Salad Daze). In addition to these primary facilities there is a Pub serving food, beer and wine on the basement level of the University Center. Catering for the university is the responsibility of Food Services.

Vending

Vending machines are located at several areas on the campus to service the needs of the university. Product selection is monitored by the University Food Service Committee.

Undergraduate Reading Lab

The Undergraduate Reading Lab/Professional Library is an essential element in the Reading Program for both graduate and undergraduate students. It serves as a resource for materials and equipment by which undergraduate students can improve their reading skills and complete additional class assignments. The lab also functions as a liaison between faculty and students, as a diagnostic lab for required or additional assessment of student skills, and as a professional resource for graduate students and faculty.

The lab has also offered services to special students from the Handicapped Center, Women's Center and the Counseling Center. In addition, the

development of a professional library and the recent donation of material from the Reading Educators Guild aids graduate students in their research and course work. Finally, a goal of this lab is to develop a base of software materials for both classroom and individual student use.

University Channel

As part of two local cable television agreements with the cities of Fullerton and Anaheim, the university received from the Group W and Storer Cable Companies complete color television production equipment to use in the television curriculum and to provide programming for dedicated channels on each of those cable systems. In January 1981, regular production of programs about Cal State Fullerton and Orange County in general was begun. Students in senior level communications courses, conceive, write and produce a wide variety of videotaped interview and discussion programs as well as special live coverage of sports and special events over University Channel 33.



Academic Advisement

School Advisement Office

Students who have declared a school of interest or who wish to explore the majors offered by a specific school should contact the appropriate school advisement office.

School of the Arts

Office of the Dean
Visual Arts 180
(714) 773-3255

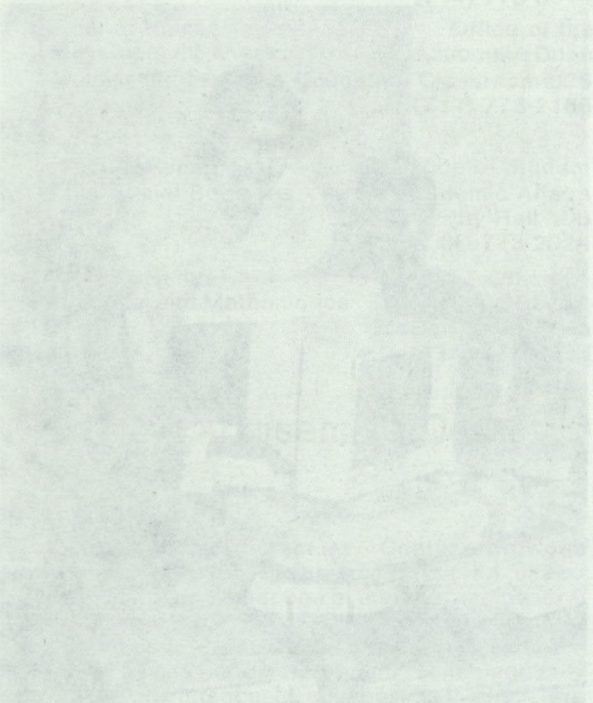
School of Business
Administration
and Economics

Business Advising Center
Langsdorf Hall 700
(714) 773-2211

School of Engineering
and Computer Science

Office of the
Associate Dean
Engineering 100G
(714) 773-3014

Office of the
Associate Dean
Engineering 100G
(714) 773-3014



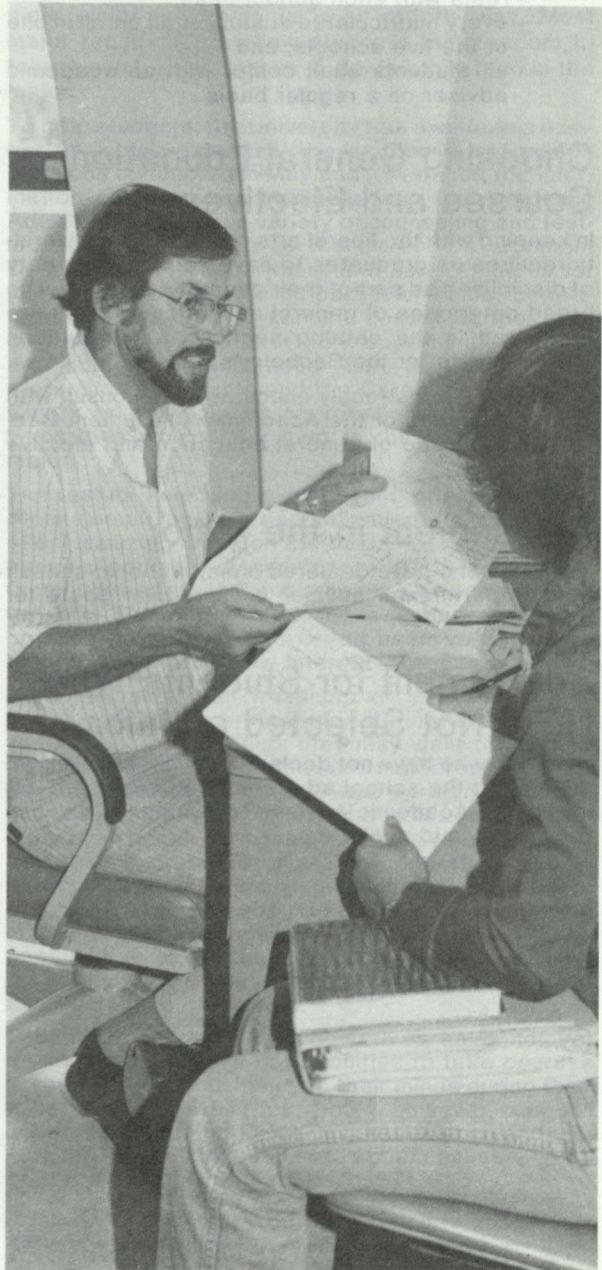
Handed by the director of the Academic Advisement Center.

For choosing general education courses and help in choosing an undergraduate major, students should seek the advice of the director or of an adviser in the Academic Advisement Center.

No appointment is necessary to engage the assistance of an adviser about various aspects of the academic life at the university. For more specific information about the office, the students should consult the class schedule.

Undeclared Majors

Lower division students who are uncertain about their primary educational or vocational goals may enroll as undeclared majors. However, they must select a school which reflects their general interests and consult the office of the school dean for



When students have decided a major field, they should study all the requirements which are

Academic Advisement

Academic Advisement Policy

The CSUF Academic Policy (UPS 300.002) states that:

- the responsibility for ensuring advisement rests with each school dean;
- every matriculated student shall enroll in one of the five schools; and
- all students shall confer with an academic adviser on a regular basis.

Choosing General Education Courses and Electives

In keeping with the liberal arts tradition, the university requires its graduates to have sampled a variety of disciplines as part of their general education. The broad categories of general education courses are presented in the catalog section on "Graduation Requirements for the Bachelor's Degree."

All students are strongly encouraged to consult with faculty members or the Academic Advisement Center about choice of general education and elective courses.

Advisement in the Major

Students who have declared a major should consult their departmental adviser on a regular basis for academic advice.

Advisement for Students Who Have Not Selected a Major

Students who have not declared a major should consult one of the school advisement offices listed below or the Academic Advisement Center to discuss their academic goals.

...television library, and the recent...
...from the Standing Educators...
...graduate students in their research and...
...work. Finally, a goal of this lab is to develop...
...a bank of software materials for both classroom and...
...individual student use.

University Channel

As part of the local cable television agreements...
...with the cities of Redlands and Azusa, the university...
...is authorized to use the Group W and Storero Cable Com...
...to provide cable television production equip...
...ment to use in the television curriculum and to...
...provide programming for dedicated channels on...
...part of their cable systems. In January 1991...
...major production of programs about Cal State Poly...



School Advisement Offices

Students who have declared a school of interest or who wish to explore the majors offered by a specific school should contact the appropriate school advisement office:

School of the Arts	Office of the Dean Visual Arts 199 (714) 773-3256
School of Business Administration and Economics	Business Advising Center Langsdorf Hall 700 (714) 773-2211
School of Engineering and Computer Science	Office of the Associate Dean Engineering 100G (714) 773-3014
School of Human Development and Community Service	Office of the Associate Dean Education Classroom 325 (711) 773-2165
School of Humanities and Social Sciences	Office of Student Academic Affairs McCarthy Hall 103 (714) 773-2024
School of Natural Science and Mathematics	Office of Academic Affairs McCarthy Hall 166 (714) 773-2638

Academic Advisement Center

Humanities 112

(714) 773-3606

The Academic Advisement Center provides guidance information in the choice of an undergraduate major and selection of elective and general education courses. It is the administrative center for undeclared undergraduate majors. All problems encountered by the undeclared major, which normally require the assistance of a department chair, are handled by the director of the Academic Advisement Center.

For choosing general education courses and help in choosing an undergraduate major, students should seek the advice of the director or of an adviser in the Academic Advisement Center.

No appointment is necessary to engage the assistance of an adviser about various aspects of the academic life at the university. For more specific information about the office, the student should consult the class schedule.

Undeclared Majors

Lower division students who are uncertain about their primary educational or vocational goals may enroll as undeclared majors. However, they must select a school which reflects their general interests and consult the office of the school dean for

academic advisement. During their freshman and sophomore years, such students should explore their interests and potential by enrolling in a set of courses recommended by a school adviser.

Choosing an Undergraduate Major

Every student should choose a major by the beginning of the junior year so that he or she may complete major requirements in an orderly way. Most major requirements allow students the freedom to take a number of courses in fields other than in the major.

To help students, the University has available a number of useful resources: the academic information sessions conducted in May and November; the information about majors available from the Academic Advisement Center; a variety of counseling and testing services provided by the Career Development Center; and the department and school offices for information and advice on particular fields, departmental brochures and manuals describing their programs of study and later work opportunities. There are student organizations with disciplinary and professional interests and the Career Development Center has information on vocations and work opportunities which may help in the selection of a major.

The task of selecting a major (and often a minor or other complementary specialization) becomes one of crystallizing ideas on the basis of experiences in specific courses, discussions with other students, faculty, the staff of the Academic Advisement Center, etc. The option of taking a limited number of courses on a Credit/No Credit basis often will be helpful in exploring new interests.

Students must plan freshman or sophomore programs which will permit their entering or taking advanced courses in fields they may want to be their majors. They should check such major requirements as mathematics, chemistry and foreign language which must be taken before the junior year or perhaps even begun during the freshman year. Students anticipating graduate or professional study should exercise special care in planning undergraduate programs, and they should seek faculty counseling in the fields concerned. Advance examination of the possibilities of graduate or professional study will be helpful to students who have clear educational and vocational objectives.

Those whose goals and objectives have not yet crystallized will have opportunities to take courses in various fields and make up their minds during their lower division work. They should, however, take full advantage of the opportunities that exist on and outside the campus to learn more about available fields of study and occupational fields.

Planning a Major Program

When students have selected a major field, they should study all the requirements which are

specified in this catalog under their chosen degree program. Then they should make a tentative semester by semester plan for completing the requirements, with regard for prerequisites. They should discuss this plan with their major advisers.

In addition to courses in the major department, related courses in other fields and supporting courses in basic skills may be required. These should be included in the tentative semester by semester plan.

Some departments require placement tests prior to admission to classes. The time and place for such tests are given in the class schedule. Students should purchase a copy of the class schedule at the Titan Bookstore well before registration for classes begins.

Change of Major, Degree or Credential Objective

To change major, degree, or credential objective, obtain the required form in the Office of Admissions and Records or the Academic Advisement Center. Such a change is not official until the form has been signed and filed in the Registrar's Office.

Departmental Academic Advisement

Each department follows the advisement system which it finds the most appropriate for its majors.

It is the responsibility of the student to obtain the assistance of a faculty adviser.

The adviser is a resource person who can provide information and suggestions and who can assist the student to find the most desirable ways to meet the requirements for graduation and for the major or credential. The final choice of courses and the responsibility for the program lies with the student. Undergraduate students who have not yet decided upon a major (undeclared majors) or who are not seeking a degree will be advised in the Academic Advisement Center.

Academic program advisers are able to offer better advice if students provide lists of courses they have taken and their own copies of transcripts from colleges previously attended (if students are new to Cal State Fullerton).

Undergraduate advisement coordinators are appointed by each department (for the School of Business Administration and Economics see below) in order to facilitate communication between students and faculty. They coordinate advisement in each department and act as resource persons for the students and the faculty of the department in all matters of advisement.

The School of Business Administration and Economics provides advisement in the advisement center of the school.

Graduate students will be assigned a major adviser in their fields of specialization, except in education

where all will have a professional adviser from the School of Human Development and Community Service. Those students seeking a credential for teaching in secondary schools will be assigned both a professional and a major adviser.

Preprofessional Programs

The academic programs of the university provide appropriate preparation for graduate work in a variety of fields. Students who have made tentative decisions about institutions in which they may wish to pursue graduate work should consult the catalogs of those graduate schools as they plan their undergraduate programs. Students planning to undertake graduate work should supplement their undergraduate programs by anticipating requirements at major graduate schools.

The university offers a number of professional programs through the master's degree. These include programs in the fine arts, business administration, communications, education, engineering, health education and physical education and recreation, public administration, and speech pathology-audiology. Students interested in preparing for professional careers in these areas, either here or in other educational institutions, are encouraged to seek assistance and guidance from our faculty members in these fields.

Prelegal Preparation

It is recommended that prospective law students prepare themselves in such fields as English, American history, economics, political science (particularly the history and development of English and American political institutions) and such undergraduate courses as judicial process, administrative law, constitutional law and international law, philosophy (particularly ethics and logic), business administration, anthropology, psychology and sociology.

A distribution of course sequences among the social sciences, the natural sciences and the humanities is desirable. Students with interest in becoming lawyers should contact the Prelaw Society. Some faculty members in the School of Business Administration and Economics and Departments of American Studies, History and Political Science, also can provide advice and assistance.

Pretheological

Students who might be interested in pursuing careers in counseling, social work, the teaching of religion, and the ministry and associated fields should take some courses in religion, psychology, anthropology, sociology, philosophy, education, communications, history, English, speech communication and a foreign language. Students desiring assistance and counseling regarding advanced work or professional careers may seek help from the faculty in the Department of Religious Studies.

Social Welfare

Students who plan to seek employment in social work or social welfare should prepare themselves in the fields of human services, psychology (particularly child and adolescent psychology), sociology, anthropology, political science, economics and research methods in social science.

Students who intend to enter a professional school following undergraduate training should learn about the specific prerequisites for admission to the graduate school of their choice. Ordinarily a major in one of the social sciences, and some additional work in at least several other social sciences, are recommended. Students with interests in pursuing careers in the fields of social welfare should contact the Department of Sociology or the Human Services Program for advice and assistance.

Health Professions

Langsdorf Hall 203

(714) 773-3980

All health professions programs are seeking the best qualified applicants with a good command of communication skills, rigorous basic science preparation and as broad a general education base as possible.

The Health Professions Committee assists students to prepare the best academic programs consistent

with their former educational experience, interests and professional objectives.

Student Responsibility

All new students, both first-time freshmen and transfer students, interested in preparing to enter one of the following health professions, or related health professions, should register with the secretary of the committee, in the Health Professions Office. These health professions are medicine, osteopathic medicine, podiatric medicine, veterinary medicine, chiropractic, clinical pharmacy, clinical pharmacology, dentistry, optometry.

The related health professions include anatomist, dental hygienist, histologist, medical technologist, nutritionist, occupational therapist, orthotist-prosthetist, pharmacologist, physical therapist, pharmacist, physiologist, public health.

Health Professions Committee

The committee assists the student to (a) gain some "preceptorship" experience with a practicing professional in the area appropriate to the field of interest; (b) select a list of professional schools to which there is a likelihood of admission; (c) prepare professional school applications; (d) prepare for an admissions interview.

The committee prepares recommendation letters for approved applicants.



Answers To Your Questions

TOPIC	WHERE TO GO	LOCATION	TELEPHONE
Academic Appeals	Academic Appeals Office	McCarthy Hall-78	773-3836
Add or Drop of Class	See Class Schedule		773-2300
Address Change	Admissions & Records Counter	Langsdorf Hall-Lobby	773-2300
Admissions/Applications	Admissions & Records Counter	Langsdorf Hall-Lobby	773-2300
Advisement: Undeclared Major Declared Majors	Academic Advisement Center Major Department	Humanities-112	773-3606
Athletics Tickets/Passport	University Center Physical Education Department	Lobby Physical Education-122	773-2468 773-2783
Counseling: Personal Vocational	Counseling Service-Health Center Career Development Center	Health Center Langsdorf Hall-208	773-2800 773-3121
Degree Application/Diploma Orders	Graduation Unit	Langsdorf Hall-110A	773-2300
Degree Evaluation, Undergraduate	Graduation Unit	Langsdorf Hall-110A	773-2300
Disqualification/Reinstatement	Admissions Counselor	Langsdorf Hall-107	773-2370
Educational Opportunities Program	Student Academic Services	Humanities 113	773-2288
Emergency Messages	Vice President for Student Services	Langsdorf Hall-810	773-3221
Enrollment Verification: Duplicate I.D. Card or Fee Receipt Letter Request	Cashier Admissions & Records Counter	Langsdorf Hall-108 Langsdorf Hall-Lobby	773-3918 773-2300
Extension Class Information	Extended Education Office	Temporary-14	773-2611
Evaluations/General Education	Evaluations Unit	Langsdorf Hall-110B	773-2300
Financial Aid	Financial Aid Office	McCarthy Hall-63	773-3125
Foreign Student: Advisement Permits to Register	Major Department International Education Office	McCarthy Hall-79	773-2787
Graduate Studies	Graduate Studies Office	McCarthy Hall-129	773-2618
Graduation Requirements	Graduation Unit	Langsdorf Hall-110A	773-2300
Handicapped Student Services	Library	Library-113	773-3117
Health Insurance	University Center	U.C. Lobby	773-2468
Housing and Transportation	Housing Office	Library 142	773-2168
Internships and Cooperative Ed.	Internship Office	Langsdorf Hall-210	773-2171
Learning Assistance	Learning Assistance Resource Center	Library 38	773-3488
Mentor Program	Student Academic Services Office	Humanities-113	773-2288
Name Change	Admissions & Records Counter	Langsdorf Hall-Lobby	773-2300
Organizations & Clubs	University Center	U.C. 2-43	773-3211
Parking: Fees Information Handicapped	Cashier Department of Public Safety Library	Langsdorf Hall-108 Temporary-1200 Library-113	773-3918 773-2515 773-3117
Readmission	Admissions & Records Counter	Langsdorf Hall-Lobby	773-2300
Records (Student)	Records Office	Langsdorf Hall-110	773-2300
Registration Fees	Cashier	Langsdorf Hall-108	773-3918
Residency	Evaluations Unit	Langsdorrd Hall-110	773-2300
Scholarships	Financial Aid Office	McCarthy Hall-63	773-3125
Student Affirmative Action	Student Academic Services Office	Humanities-113	773-2288
Summer Sessions, Information	Extended Education Office	Temporary-14	773-2611
Test Information	Testing Center	Langsdorf Hall-206	773-3838
Transcripts	Admissions & Records Counter	Langsdorf Hall-Lobby	773-2300
Tutoring	Learning Assistance Resource Center	Library-38	773-3488
Veterans Certification	Veterans Affairs Office	Langsdorf Hall-110C	773-2300
Women's Center	Women's Center	McCarthy Hall-33	773-3928

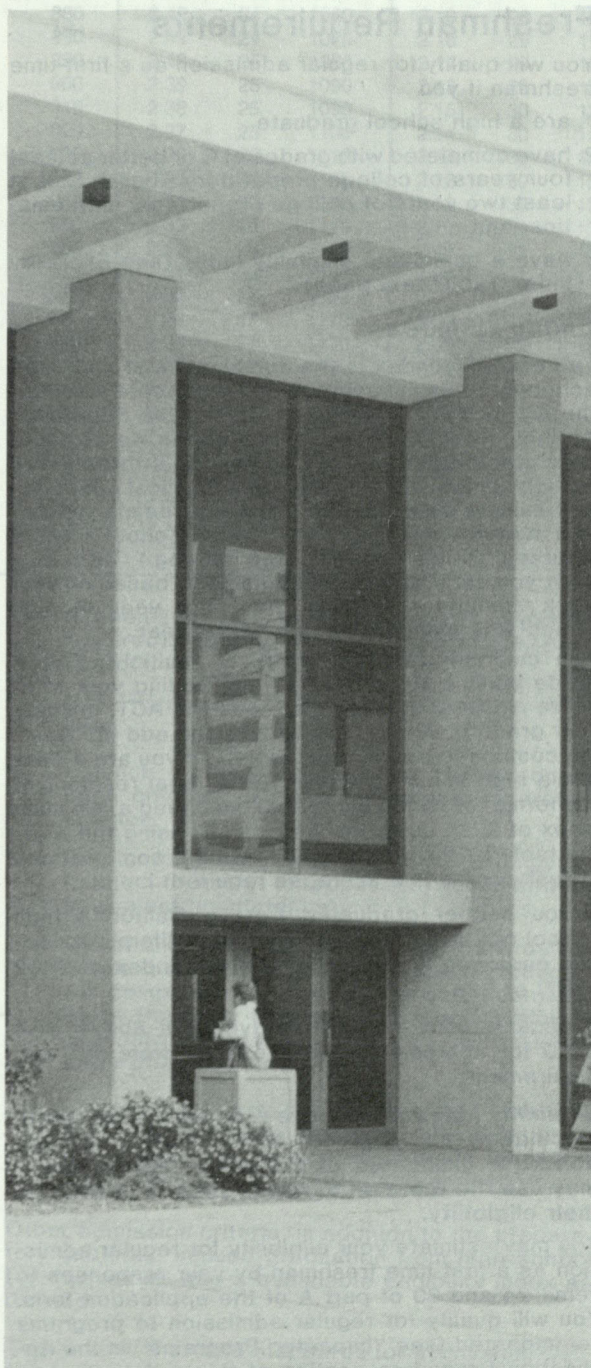
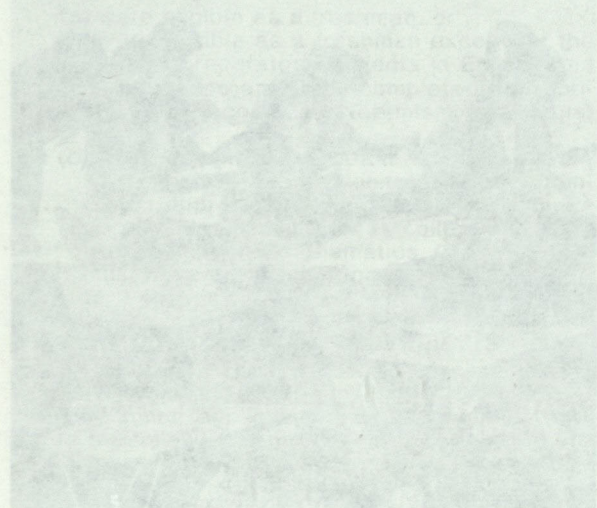
Admissions Policies

G.P.A.	ACT Score	SAT Score	G.P.A.	ACT Score	SAT Score	G.P.A.	ACT Score	SAT Score	G.P.A.	ACT Score	SAT Score	G.P.A.	ACT Score	SAT Score
3.00	11	520	2.88	15	680	2.85	20	880	2.82	25	1080	2.79	30	1280
3.09	11	530	2.87	15	700	2.84	20	900	2.81	25	1100	2.78	30	1300
3.08	11	530	2.86	15	720	2.83	20	920	2.80	25	1120	2.77	30	1320
3.07	11	540	2.84	16	730	2.81	20	940	2.78	25	1140	2.75	30	1340
3.06	11	550	2.83	16	750	2.80	21	960	2.77	26	1160	2.74	31	1360
3.05	12	560	2.82	16	760	2.79	21	980	2.76	26	1180	2.73	31	1380
3.04	12	570	2.81	16	780	2.78	21	1000	2.75	27	1200	2.72	32	1400
3.03	12	570	2.80	17	790	2.77	21	1020	2.74	27	1220	2.71	32	1420
3.02	12	580	2.79	17	770	2.76	21	1040	2.73	28	1240	2.70	33	1440
3.01	12	590	2.78	17	770	2.65	22	1060	2.72	28	1260	2.69	33	1460
3.00	13	600	2.77	17	780	2.54	22	1080	2.71	29	1280	2.68	34	1480
2.99	13	610	2.76	17	790	2.53	22	1100	2.70	29	1300	2.67	34	1500
2.98	13	610	2.75	18	800	2.52	22	1120	2.69	30	1320	2.66	35	1520
2.97	13	620	2.74	18	810	2.51	22	1140	2.68	30	1340	2.65	35	1540
2.96	13	630	2.73	18	810	2.50	23	1160	2.67	31	1360	2.64	36	1560
2.95	14	640	2.72	18	820	2.49	23	1180	2.66	31	1380	2.63	36	1580
2.94	14	650	2.71	18	830	2.48	23	1200	2.65	32	1400	2.62	37	1600
2.93	14	650	2.70	19	840	2.47	23	1220	2.64	32	1420	2.61	37	1620
2.92	14	660	2.69	19	850	2.46	23	1240	2.63	33	1440	2.60	38	1640
2.91	14	670	2.68	19	860	2.45	24	1260	2.62	33	1460	2.59	38	1660
2.90	15	680	2.67	19	860	2.44	24	1280	2.61	34	1480	2.58	39	1680
2.89	15	690	2.66	19	870	2.43	24	1300	2.60	34	1500	2.57	39	1700

and at least 4 semesters of college preparatory mathematics. You may still qualify for regular admission on condition, if you are missing no more than two semesters of the required courses in English and mathematics. Please consult a counselor if you have any questions.

Transfer Requirements

You will qualify for admission as a transfer student if you have a grade point average of 2.0 (C) or better in college-level courses. You must also have completed at least 6 semester hours of college-level work.



least 8 semesters of college preparatory English.

Undergraduate Students

Freshman Requirements

You will qualify for regular admission as a first-time freshman if you

1. are a high school graduate,
2. have completed with grades of C or better at least four years of college preparatory English and at least two years of college preparatory mathematics, and
3. have a qualifiable eligibility index (see Eligibility Index Table next page)

Eligibility Index

The eligibility index is the combination of your high school grade point average and your score on either the American College Test (ACT) or the Scholastic Aptitude Test (SAT). For this purpose we compute your grade point average on your final three years of high school studies, excluding physical education and military science, and use bonus points for certain honors courses. (See "High School Honors Courses" in this section of the catalog.) CSUF may offer you early, provisional admission based on your work completed through the junior year of high school and planned for your senior year.

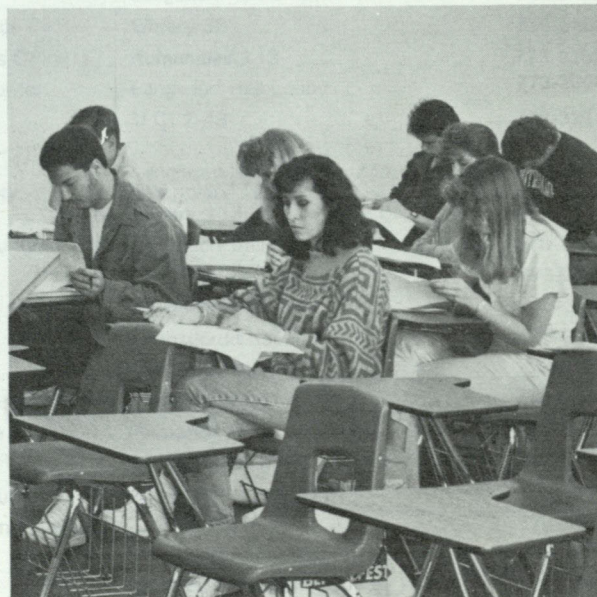
You can calculate the index by multiplying your grade point average by 800 and adding your total score on the SAT. Or, if you took the ACT, multiply your grade point average by 200 and add ten times the composite score from the ACT. If you are a California high school graduate (or a legal resident of California for tuition purposes), you need a minimum index of 2994 using the SAT or 722 using the ACT; the table on the next page shows the combinations of test scores and averages required.

If you neither graduated from a California high school nor are a legal resident of California for tuition purposes, you need a minimum index of 3402 (SAT) or 826 (ACT).

Applicants with grade-point averages above 3.10 (3.60 for nonresidents) are exempt from the test requirement.

Eligibility Index Alternative—As an alternative to calculating an eligibility index, California residents (or graduates of California high schools) may use the table on the next page to determine their eligibility.

You may estimate your eligibility for regular admission as a first-time freshman by your responses to items 24 and 30 of part A of the application form. You will qualify for regular admission to programs not impacted (see "Impacted Programs" in the Application Procedure section of this catalog) when the university verifies that you have a qualifiable eligibility index and that you will have completed at least 8 semesters of college preparatory English



Eligibility Index Table for California High School Graduates or Residents of California

G.P.A.	A.C.T. Score	S.A.T. Score	G.P.A.	A.C.T. Score	S.A.T. Score	G.P.A.	A.C.T. Score	S.A.T. Score	G.P.A.	A.C.T. Score	S.A.T. Score	G.P.A.	A.C.T. Score	S.A.T. Score
Above 3.10 qualifies with any score			2.88	15	690	2.65	20	880	2.42	24	1060	2.19	29	1250
3.10	11	520	2.87	15	700	2.64	20	890	2.41	24	1070	2.18	29	1250
3.09	11	530	2.86	15	710	2.63	20	890	2.40	25	1080	2.17	29	1260
3.08	11	530	2.85	16	720	2.62	20	900	2.39	25	1090	2.16	29	1270
3.07	11	540	2.84	16	730	2.61	20	910	2.38	25	1090	2.15	30	1280
3.06	11	550	2.83	16	730	2.60	21	920	2.37	25	1100	2.14	30	1290
3.05	12	560	2.82	16	740	2.59	21	930	2.36	25	1110	2.13	30	1290
3.04	12	570	2.81	16	750	2.58	21	930	2.35	26	1120	2.12	30	1300
3.03	12	570	2.80	17	760	2.57	21	940	2.34	26	1130	2.11	30	1310
3.02	12	580	2.79	17	770	2.56	21	950	2.33	26	1130	2.10	31	1320
3.01	12	590	2.78	17	770	2.55	22	960	2.32	26	1140	2.09	31	1330
3.00	13	600	2.77	17	780	2.54	22	970	2.31	26	1150	2.08	31	1330
2.99	13	610	2.76	17	790	2.53	22	970	2.30	27	1160	2.07	31	1340
2.98	13	610	2.75	18	800	2.52	22	980	2.29	27	1170	2.06	31	1350
2.97	13	620	2.74	18	810	2.51	22	990	2.28	27	1170	2.05	32	1360
2.96	13	630	2.73	18	810	2.50	23	1000	2.27	27	1180	2.04	32	1370
2.95	14	640	2.72	18	820	2.49	23	1010	2.26	27	1190	2.03	32	1370
2.94	14	650	2.71	18	830	2.48	23	1010	2.25	28	1200	2.02	32	1380
2.93	14	650	2.70	19	840	2.47	23	1020	2.24	28	1210	2.01	32	1390
2.92	14	660	2.69	19	850	2.46	23	1030	2.23	28	1210	2.00	33	1400
2.91	14	670	2.68	19	850	2.45	24	1040	2.22	28	1220	Below 2.00 does not qualify for regular admission		
2.90	15	680	2.67	19	860	2.44	24	1050	2.21	28	1230			
2.89	15	690	2.66	19	870	2.43	24	1050	2.20	29	1240			

and at least 4 semesters of college preparatory mathematics. You may still qualify for regular admission *on condition*, if you are missing no more than two semesters of the required courses in English and mathematics. Please consult a counselor if you have any questions.

Transfer Requirements

You will qualify for admission as a transfer student if you have a grade point average of 2.0 (C) or better in all transferable units attempted, are in good standing at the last college or university attended, and meet the following standard:

- (a) were eligible as a freshman, or
- (b) were eligible as a freshman except for the college preparatory subjects in English and mathematics and have completed appropriate college courses in the missing subjects, or
- (c) have completed at least 56 transferable semester (84 quarter) units and have completed appropriate college courses to make up any missing subjects in college preparatory English and mathematics. (Nonresidents must have a 2.4 grade point average or better.)

Fall 1988 Admission Requirements

Effective with Fall 1988 terms and thereafter, first-time freshman applicants shall be required to include the following comprehensive pattern of college preparatory subjects in their studies:

English, 4 years (presently required).

Mathematics, 3 years (2 years presently required): algebra, geometry, and intermediate algebra.

U.S. History or U.S. History and government, 1 year.

Science, 1 year with laboratory: biology, chemistry, physics, or other acceptable laboratory science.

Foreign language, 2 years in the same language (subject to waiver for applicants demonstrating equivalent competence).

Visual and performing arts, 1 year: art, dance, drama/theatre, or music. Acceptable courses will combine theory and practice and meet the State Board of Education's *Model Curriculum Standards, Grades Nine Through Twelve: Visual and Performing Arts*.

Electives, 3 years: Courses selected from English, advanced mathematics, social science, history, laboratory science, foreign language, visual and performing arts, and agriculture.

Other admission criteria, in addition to the preparatory subjects, include graduation from high school (or equivalent) and a qualifiable Eligibility Index as defined.

To phase in the 1988 standards for admission, California State University will provide for the conditional admission of applicants otherwise admissible but who are missing a limited number of the required subjects.

"Conditional admission" is an alternative means to establish eligibility for admission. Applicants otherwise eligible for regular admission, but missing a limited number of the preparatory subjects, will be regularly admitted on condition that they make up the missing subjects early in their baccalaureate studies. Students will not be denied admission during the phase-in period simply because they lack a limited part of the required pattern.

Under the plan, the minimum number of subjects to be completed each year will be:

Fall 1988: at least 10 of the required 15 units
Fall 1989: at least 12 of the required 15 units
Fall 1990 and Fall 1991: at least 14 of the required 15 units

In each of these years, applicants will be expected to include at least 6 of the 7 units required in English and mathematics.

By Fall 1992, the CSU will expect all freshman applicants to have completed all required subjects.

High School Honors Courses

Grades in up to eight semester courses, taken in the last two years of high school, that are designated honors in approved subjects receive additional points in grade point average calculations. Each unit of A in approved courses will receive a total of 5 points; B, 4 points; C, 3 points; D 1 point; and none for F grades.

Health Screening

All new and readmitted students, born after January 1, 1957, will be notified of the requirement to present proof of measles and rubella immunizations. This is *not* an admissions requirement, but shall be required of students by the beginning of their second term of enrollment in CSU. Proof of measles and rubella immunizations shall also be required for certain groups of enrolled students who have increased exposure to these diseases.

Measles and Rubella Immunizations

The campus shall notify certain students, born after January 1, 1957, of the CSU requirement to present proof of measles and rubella immunizations by the beginning of the next term of enrollment. At the beginning of the next term of enrollment, those so notified who have not presented acceptable proof of the immunizations shall be notified further of the need to comply before receiving registration materials to enroll for the succeeding term.

Persons subject to these health screening provisions include:

New students enrolling fall 1986 and later;

Readmitted students reenrolling fall 1986 and later;

Students who reside in campus residence halls; (Campuses that do not operate residence halls may delete this reference)

Students who obtained their primary and secondary schooling outside the United States;

Students enrolled in dietetics, medical technology, nursing, physical therapy, and any practicum, student teaching, or field work involving preschool-age children, school-age children, or taking place in a hospital or health care setting. (Campuses may modify the list of types of study in this reference as appropriate to their curricula.)

The Student Health Center shall provide immunizations without cost to those students unable to obtain acceptable proof of immunizations.

Test Scores

Freshman and transfer applicants who have fewer than 56 semester or 84 quarter units of transferable college work must submit scores, unless exempt, from either the Scholastic Aptitude Test of the College Board (SAT) or the American College Test Program (ACT). You may obtain registration forms and the dates for either test from school or college counselors, from a campus Testing Office or by writing to:

The College Board (SAT)
Registration Unit, Box 592
Princeton, New Jersey 08541

American College Testing
Program (ACT)
Registration Unit, P.O. Box 168
Iowa City, Iowa 52240

TOEFL Requirement

All undergraduate applicants, regardless of citizenship, whose preparatory education was principally in a language other than English, must demonstrate competence in English. Those who have not attended schools for at least three years at the secondary level or above where English is the principal language of instruction must earn a minimum score of 500 on the Test of English as a Foreign Language (TOEFL). Individual campuses may require a higher score.

Placement Test Requirements

English Placement Test (EPT)

The English Placement Test (EPT) is required of all entering California State University undergraduate students who are not otherwise exempt. Exemptions are granted only for those students who present proof of having met *one* of the following criteria:

- a score of 3, 4 or 5 on either the Language and Composition or the Composition and Literature examination of the College Board Advanced Placement Program
- a satisfactory score on the CSU English Equivalency Examination
- a score of 510 or above on the Verbal section of the College Board Scholastic Aptitude Test (SAT-Verbal)
- a score of 23 or above on the ACT English Usage Test

- a score of 600 or above on the College Board Achievement Test in English Composition with essay
- completion of an acceptable college course in English composition of four quarter or three semester units with a grade of C or better

The EPT is offered only to admitted students and has no effect on admission decisions. Effective with the 1986/87 academic year, all nonexempt students subject to the 1985/87 or subsequent catalogs, including those enrolling with 56 or more transferable semester units, are required to take the EPT.

California State University, Fullerton (CSUF) has established the following policy regarding compliance with this regulation:

Effective fall 1986, each new and continuing undergraduate student who has not taken the EPT and who is not otherwise exempt must take the test prior to the beginning of their next semester of enrollment at CSUF. Students who fail to comply with this policy shall be placed on administrative academic probation in their next semester of enrollment at Fullerton. Students on probation for this reason who do not take the EPT prior to the beginning of their third semester of enrollment at CSUF will be administratively disqualified from enrolling until they take the EPT.

Entry Level Mathematics (ELM) Test

The Entry Level Mathematics (ELM) test is required of all California State University undergraduate students who were admitted for fall 1983 or after under the 1983/84 or later campus catalog and who are not otherwise exempt. Exemptions are granted only for those students who present proof of having met one of the following criteria:

- a score of 3 or above on the College Board Advanced Placement Mathematics examination (AB or BC)
- a score of 530 or above on the Mathematics section of the Scholastic Aptitude Test (SAT-Math)
- a score of 23 or above on the ACT Mathematics Test
- a score of 520 or above on the College Board Math Achievement Test, Level 1
- a score of 540 or above on the College Board Math Achievement Test, Level 2
- completion of a college course that satisfies the General Education-Breadth Requirement in Quantitative Reasoning, provided it is at the level of intermediate algebra or above with a grade of C or better.

The ELM test is offered only to admitted students and has no effect on admission decisions, but it must be taken and passed before the student can enroll in any course that satisfies the Mathematical Concepts and Quantitative Reasoning portion of the General Education-Breadth requirements.

California State University, Fullerton (CSUF) established the following policy regarding compliance with this regulation:

A. REQUIREMENT TO TAKE THE ELM TEST

Effective fall 1986, each new and continuing undergraduate student who has not taken the ELM test and who is not otherwise exempt must take the test prior to the beginning of their next semester of enrollment at CSUF. Students who fail to comply shall be placed on administrative academic probation in their next semester of enrollment at Fullerton. Students on probation for this reason who do not take the test prior to the beginning of the third semester of enrollment at CSUF will be administratively disqualified from enrolling until such time as they take the ELM test.

B. STUDENTS WHO HAVE TAKEN BUT NOT PASSED THE ELM TEST

Students who have taken but failed to pass the ELM test must participate in a program designed to assist them in learning the skills needed to pass the test (such as the Intensive Learning Experience). The program may be one offered at CSUF or an appropriate program on another campus. For continuing students, participation must begin in the fall 1986 semester. Effective fall 1986, new and returning students must participate in an approved program in their first semester of enrollment after the receipt of the test results. Learning Assistance Resource Center is responsible for monitoring compliance with this provision and for certifying the appropriateness of the course in which the student wishes to participate.

Participation in a program to prepare for the ELM test must be continued until the test is passed. At least one attempt to pass the test must be made each semester. Students who fail to comply with this requirement shall be placed on administrative academic probation. Students on probation for this reason must pass the ELM test before the beginning of the next semester or they will be administratively disqualified from enrolling until they obtain a passing score.

C. ELM AND CREDIT UNIT LIMITATIONS

Students not otherwise exempt and who have not passed the ELM test will be placed on administrative academic probation the first semester after they complete 61 or more semester units of credit. Such students must pass the ELM test before the beginning of the next semester or they will be administratively disqualified.

Residency Requirements

The campus admissions office determines the residence status of all new and returning students for nonresident tuition purposes. Responses to the Application for Admission and, if necessary, other evidence furnished by the student are used in making this determination. A student who fails to submit adequate information to establish a right to classification as a California resident will be classified as a nonresident.

The following statement of the rules regarding residency determination for nonresident tuition purposes is not a complete discussion of the law, but a summary of the principal rules and their exceptions. The law governing residence determination for tuition purposes by The California State University is found in *Education Code* Sections 68000-68090, 68121, 68123, 68124, 89705-89707.5, and 90408 and in Title 5 of the *California Administrative Code*, Sections 41900-41912. A copy of the statutes and regulations is available for inspection in the campus admissions office.

Legal residence may be established by an adult who is physically present in the state and who, at the same time, intends to make California his or her permanent home. Steps must be taken at least one year prior to the residence determination date to show an intent to make California the permanent home with concurrent relinquishment of the prior legal residence. The steps necessary to show California residency intent will vary from case to case. Included among the steps may be registering to vote and voting in elections in California; filing resident California state income tax forms on total income; ownership of residential property or continuous occupancy or renting of an apartment on a lease basis where one's permanent belongings are kept; maintaining active resident memberships in California professional or social organizations; maintaining California vehicle plates and operator's license; maintaining active savings and checking accounts in California banks; maintaining permanent military address and home of record in California if one is in the military service.

The student who is within the state for educational purposes only does not gain the status of resident regardless of the length of the student's stay in California.

In general, the unmarried minor (a person under 18 years of age) derives legal residence from the parent with whom the minor maintains or last maintained his or her place of abode. The residence of a minor cannot be changed by the minor or the minor's guardian, so long as the minor's parents are living.

A married person may establish his or her residence independent of his or her spouse.

An alien may establish his or her residence, unless precluded by the Immigration and Nationality Act from establishing domicile in the United States. An unmarried minor alien derives his or her residence from the parent with whom the minor maintains or last maintained his or her place of abode.

Nonresident students seeking reclassification are required by law to complete a supplemental questionnaire concerning financial independence.

The general rule is that a student must have been a California resident for at least one year immediately preceding the residence determination date in order to qualify as a "resident student" for tuition purposes. A residence determination date is set for each academic term.

At the Fullerton campus, the residence determination date for the fall term is September 20, and for the spring term is January 25.

Questions regarding residence determination dates should be directed to the campus admissions office which can give you the residence determination date for the term for which you are registering.

There are exceptions from nonresident tuition, including:

1. Persons below the age of 19 whose parents were residents of California but who left the state while the student, who remained, was still a minor. When the minor reaches age 18, the exception continues for one year to enable the student to qualify as a resident student.
2. Minors who have been present in California with the intent of acquiring residence for more than a year before the residence determination date, and entirely self-supporting for that period of time.
3. Minors below the age of 19 who have lived with and been under the continuous direct care and control of an adult, not a parent, for the two years immediately preceding the residence determination date. Such adult must have been a California resident for the most recent year.
4. Dependent children and spouses of persons in active military service stationed in California on the residence determination date. This exception applies only for the minimum time required for the student to obtain California residence and maintain that residence for a year. The exception, once attained, is not affected by retirement or transfer of the military person outside the state.
5. Military personnel in active service stationed in California on the residence determination date for purposes other than education at state-supported institutions of higher education. This exception applies only for the minimum time required for the student to obtain California residence and maintain that residence for a year.
6. Certain credentialed, full-time employees of California school districts.
7. Full-time State University employees and their children and spouses: State employees assigned to work outside the State and their children and spouses. This exception applies only for the minimum time required for the student to obtain California residence and maintain that residence for one year.
8. Certain exchange students.
9. Children of deceased public law enforcement or fire suppression employees, who were California residents, and who were killed in the course of law enforcement or fire suppression duties.

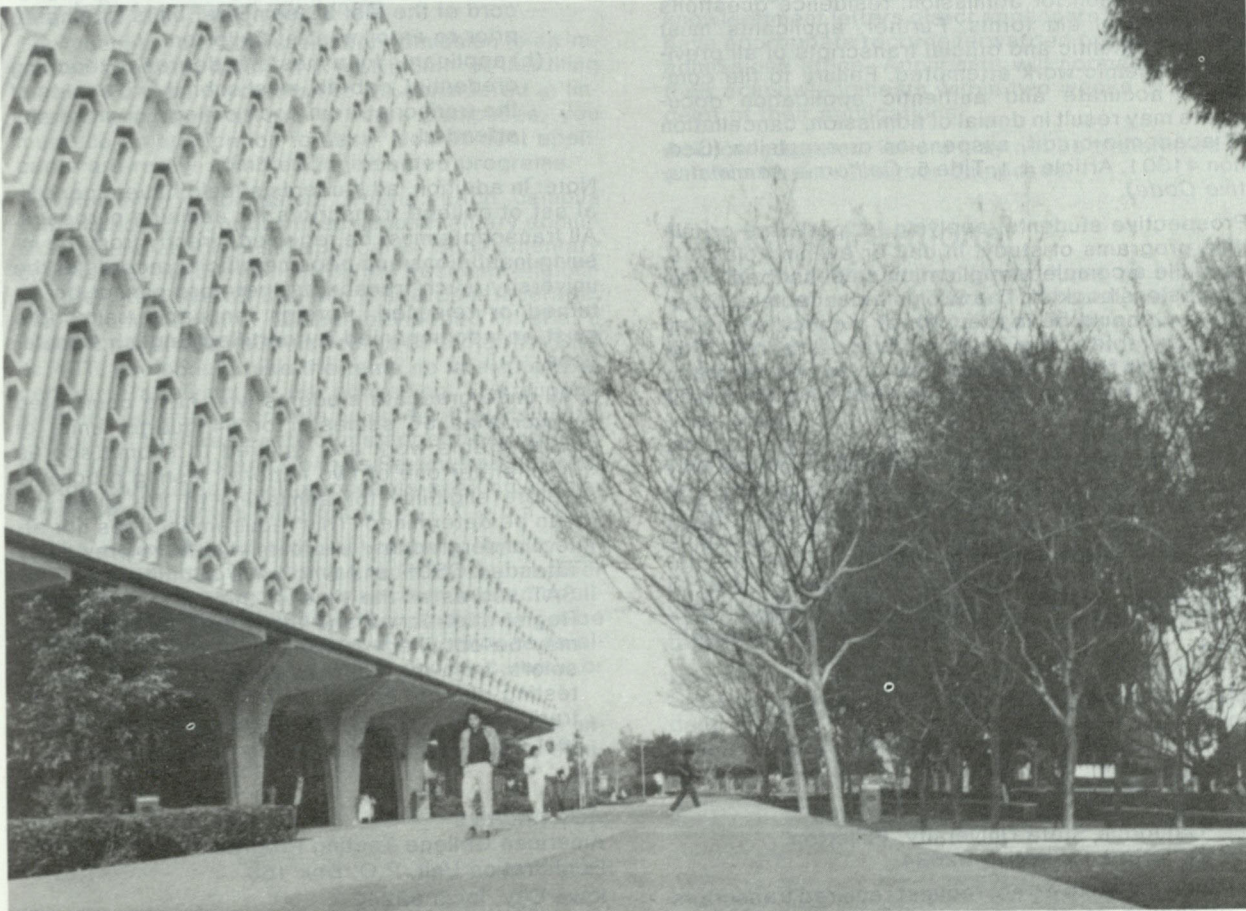
Any student, following a final campus decision on his or her residence classification, only may make written appeal within 120 calendar days of notification of the final decision on campus of the classification to:

The California State University
Office of General Counsel
400 Golden Shore
Long Beach, California 90802-4275

The Office of General Counsel may make a decision on the issue, or it may send the matter back to the campus for further review. Students classified incorrectly as residents or incorrectly granted an exception from nonresident tuition are subject to reclassification as nonresidents and payment of nonresident tuition in arrears. If incorrect classification results from false or concealed facts, the student is subject to discipline pursuant to Section 41301 of Title 5 of the *California Administrative Code*. Resident students who become nonresidents, and nonresident students qualifying for exceptions whose basis for

so qualifying changes, must immediately notify the admissions office. Applications for a change in classification with respect to a previous term are not accepted.

The student is cautioned that this summation of rules regarding residency determination is by no means a complete explanation of their meaning. The student should also note that changes may have been made in the rate of nonresident tuition, in the statutes, and in the regulations between the time this catalog is published and the relevant residence determination date.



Application Procedures

Applications may be obtained from the admissions office at any of the campuses of The California State University or at any California high school or community college. Requirements for admission to California State University, Fullerton are in accordance with Title 5, Chapter 1, Sub-chapter 3, of the *California Administrative Code*. A student unsure of these requirements should consult a high school or community college counselor or the admissions office at California State University, Fullerton.

The CSU advises prospective students that they must supply complete and accurate information on the application for admission, residence questions and financial aid forms. Further, applicants must submit authentic and official transcripts of all previous academic work attempted. Failure to file complete, accurate and authentic application documents may result in denial of admission, cancellation of academic credit, suspension or expulsion (Section 41301, Article 1.1, Title 5, *California Administrative Code*).

Prospective students, applying for part-time or full-time programs of study, in day or evening classes, must file a complete application as described in the admissions booklet. The \$35 nonrefundable application fee should be in the form of a check or money order payable to The California State University. The application fee may not be transferred or used to apply to another term. Applicants need file only at their campus of first choice. An alternative choice campus and major may be indicated on the application. Applicants should list as an alternative campus only that campus of The California State University that they would be able to attend. Generally, an alternative major will be considered at the first choice campus before an application is redirected to an alternative choice campus. Applicants will be considered automatically at the alternative choice campus only if the first choice campus is unable to accommodate them.

How to Apply for Admission

1. Submit a completed application for admission within the announced filing period accompanied by the required application fee to:
Office of Admissions and Records
California State University, Fullerton
Fullerton, California 92634
2. When asked to do so, request required transcripts of record of all previous scholastic work from each school or college attended. The transcripts required at CSUF are:
 - for undergraduate applicants with fewer than 56 transferable semester units:
 - (a) the high school transcript, and
 - (b) a transcript from each college or university attended.

—for undergraduates with 56 or more transferable semester units:

(a) a transcript from each college or university attended.

—for graduates:

(a) applicants for unclassified postbaccalaureate standing with no degree or credential objective must submit a transcript from the college or university where the baccalaureate was earned. Further, one transcript from other institutions attended is required as necessary so that the university has a complete record of the last 60 semester units attempted prior to enrollment at Fullerton.

(b) applicants for a master's degree or teaching credential, or both, must submit two copies of the transcript from each college or university attended.

Note: In addition, all students should have a personal set of college transcripts for advising purposes. All transcripts must be received directly from the issuing institutions and become official records of the university; such transcripts therefore cannot be returned or reissued. Foreign language transcripts must be accompanied by certified English translations.

3. All undergraduate students who have completed fewer than 56 semester or 84 quarter units of transferable work are required to submit scores from either one of two national testing programs before eligibility for admission to the university can be determined. This requirement does not affect undergraduate students who have previously attended CSUF and who have submitted ACT or SAT scores at the time of their first admission. Registration forms and test dates for either test may be obtained from school or college counselors, from the address below, or from campus testing offices. For either test, submit the registration form and fee at least one month prior to the test date.

ACT Address

American College Testing Program, Inc.
Registration Unit, P.O. Box 168
Iowa City, Iowa 52240

SAT Address

College Entrance Examination Board
P.O. Box 592
Princeton, New Jersey 08541

Applicants to classified graduate curricula must submit the scores of any qualifying examinations required in their prospective programs of study.

Impacted Programs

The CSU designates programs to be impacted when more applications are received in the first month of the fall and spring filing periods than the spaces available. Some programs are impacted at every campus where they are offered; others are impacted at some campuses but not all. You must meet supplementary admissions criteria if applying to an impacted program.

The CSU will announce before the opening of the fall filing period which programs are designated impacted for the academic year. That announcement will be published in the *CSU School and College Review*, distributed to high school and college counselors. We will also give information about the supplementary criteria to program applicants.

You must file your application for admission to an impacted program during the first month of the filing period. Further, if you wish to be considered in impacted programs at two or more campuses, you must file an application to each. Nonresident applicants are rarely admitted to impacted programs.

Supplementary Admission Criteria: Each campus with impacted programs uses supplementary admission criteria in screening applicants. Supplementary criteria may include ranking on the freshman eligibility index, the overall transfer grade point average, and a combination of campus-developed criteria. If you are required to submit scores on either the SAT or ACT, you should take the tests no later than December if applying for fall admission. The supplementary admission criteria used by the individual campuses to screen applicants appear periodically in the *CSU School and College Review* and are sent by the campuses to all applicants seeking admission to an impacted program.

Unlike unaccommodated applicants to locally impacted programs, who may be redirected to another campus in the same major, unaccommodated applicants to systemwide impacted programs may not be redirected in the same major, but may choose an alternative major either at the first choice campus or another campus.

At the time of the preparation of this catalog, the undergraduate major in electrical/ electronic engi-

neering at Fullerton was declared impacted as defined in this section.

Application Filing Periods

Term	Filing Period Begins	Filing Period Duration
Fall	Previous November	Until application
Spring	Previous August	categories are filled

Application Acknowledgment

Applicants who can be accommodated will receive letters acknowledging their application. The letters are not statements of admission but are commitments by Cal State Fullerton to admit the applicants who establish their eligibility for admission. The acknowledgment letters direct applicants to arrange to have appropriate records forwarded promptly to the admissions office. Applicants will normally receive their acknowledgments within two weeks of the receipt of their applications.

Acknowledgement letters may not be transferred to another term or to other campuses.

Hardship Petitions

Fullerton has established procedures to consider qualified applicants who would be faced with an extreme hardship if not admitted. Prospective hardship petitioners should write to the director of admissions and records regarding specific policies governing hardship admission.

Records Retention

The university retains the admissions materials for those who apply, but who for whatever reason do not enroll for two years. For those who do enroll the university will retain the materials in student folders, including transcripts of the record of work completed elsewhere, for five years beyond the date of last attendance.

Records of academic performance at California State University, Fullerton, including individual student records, faculty grade lists, and graduation lists are kept permanently.

Admission Requirements

Admission Requirements for First-Time Freshman

High School Graduates

You will qualify for regular admission as a first-time freshman if you

1. are a high school graduate
2. have a qualifying eligibility index (see previous chart), and
3. have completed with grades of C or better at least four years of college preparatory English and at least two years of college preparatory mathematics.

Subject Requirements

The California State University requires that all undergraduate applicants for admission complete with a C or better four years of college preparatory study in English and two years of college preparatory mathematics, or their equivalent. California secondary school courses that meet the subject requirements are listed in "Courses to Meet Requirements for Admission to the University of California," published for, and available at each high school.

English: Regular English courses in the 9th and 10th grades that integrate reading and writing will be considered college preparatory. English courses in the 11th and 12th grades will be considered college preparatory if (1) they include writing instruction and evaluation, and require substantial amounts of writing of extensive, structured papers, expressive and analytical, demanding a high level of thinking skills; and (2) they are integrated with challenging, in-depth reading of significant literature.

Courses in speech, drama, or journalism will be considered college preparatory if they meet the criteria for 11th and 12th grade courses. Two consecutive semesters of advanced English as a Second Language may be substituted for two semesters of college preparatory English. Remedial reading and writing courses at any level will not be accepted nor will courses in beginning or intermediate English as a Second Language.

Mathematics: College preparatory courses in mathematics include algebra, geometry, trigonometry, calculus and mathematical analysis. Most students will have taken at least algebra and geometry or two years of algebra. Business or technical mathematics, arithmetic or prealgebra are not considered college preparatory.

Making Up Missing Preparatory Subjects: Undergraduate applicants may make up the required courses in college preparatory English and mathematics after high school by completing with a C or

better college courses that meet the college preparatory criteria. Normally, college courses applicable to the CSU general education requirements in written communication in English and in mathematics, in addition to any required prerequisites to such courses, satisfy the subject requirements. Please consult with any CSU admissions office for further information about alternative ways to satisfy the subject requirements.

Provisional Admission

Beginning with fall term 1987, campuses may provisionally admit first-time freshman applicants based on their academic performance through the junior year of high school. California State University, Fullerton will monitor the senior year of study of those provisionally admitted to ensure that those so admitted complete their senior year of studies satisfactorily, including the required college preparatory subjects, and graduate from high school.

Non-High School Graduates

Applicants over 18 years of age, but who have not graduated from high school, will be considered for admission as first-time freshman only when preparation in all other ways is such that the university believes promise of academic success is equivalent to that of eligible California high school graduates.

High School Students

Students still enrolled in high school will be considered for enrollment in certain special programs if recommended by the principal and the appropriate campus department chair and if preparation is equivalent to that required of eligible California high school graduates. Such admission is only for a given program and does not constitute the right to continued enrollment.

Adult Students

As an alternative to regular admission criteria, an applicant who is twenty-five years of age or older may be considered for admission as an adult student if he or she meets the following basic conditions:

1. Possesses a high school diploma (or has established equivalence through either the Tests of General Educational Development (GED) or the California High School Proficiency Examination).
2. Has not been enrolled in college as a full-time student for more than one term during the past five years. Part-time enrollment is permissible.
3. If there has been any college attendance in the past five years, has earned a C average or better.

Consideration will be based upon a judgement as to whether the applicant is likely to succeed as a regu-

larly admitted freshman or transfer and will include an assessment of basic skills in the English language and mathematical computation.

Admission Requirements for Undergraduate Transfer Students

You will qualify for admission as a transfer student if you have a grade point average of 2.0 (C) or better in all transferable units attempted, are in good standing at the last college or university attended, and meet the following standard:

- (a) were eligible as a freshman, or
- (b) were eligible as a freshman except for the college preparatory subjects in English and mathematics and have completed appropriate college courses in the missing subjects or
- (c) have completed at least 56 transferable semester (84 quarter) units and have completed appropriate courses to make up any missing subjects in college preparatory English and mathematics. (Nonresidents must have a 2.4 grade-point average or better.)

For these requirements, transferable courses are those designated for that purpose by the college or university offering the courses.

Undergraduate applicants may make up the required courses in college preparatory English and mathematics after school by completing with a C or better college courses that meet the college preparatory criteria. Normally, college courses applicable to the CSU general education requirements in written communication in English and in mathematics, in addition to any required prerequisites to such courses, satisfy the subject requirements. Please consult with the admissions office for further information about alternative ways to satisfy the subject requirements.

Admission Requirements for International Students

The university is pleased to accept applications from international students. Freshman applicants applying directly from overseas should have outstanding academic qualifications and meet TOEFL score requirements. Applicants who are graduates of foreign secondary schools must have preparation equivalent to that required of eligible California high school graduates. The university will carefully review the previous record of all such applicants and only those with promise of academic success equivalent to that of eligible California high school graduates will be admitted. Undergraduate transfers, who have completed a two-year program in an accredited institution of higher education, with a good academic record and satisfactory TOEFL scores, shall receive priority for admission.

Postbaccalaureate applicants who have completed a bachelor's degree or its equivalent, with a strong academic record, and satisfactory TOEFL scores

from an accredited institution may be considered for admission as graduate students.

The university has established guidelines to insure the timely processing of all applications and to enable admitted applicants to make arrangements to reach the U.S. and the campus prior to orientation and registration. *Early application is strongly advised due to strong demand for programs.* Newly admitted students are required to take an English Placement Examination prior to enrollment in classes (mid-August for fall semester and mid-January for spring semester).

Applications may be submitted from the following dates until spaces are filled:

For Fall Semester

November 1 of preceding year

For Spring Semester

August 1 of preceding year

All international student applicants must declare a major field of study when the application is filed. Campus programs of study which receive more applications than spaces are available, have been declared impacted, and are not open to nonresidents, foreign or domestic.

All applicants whose native language is other than English are required to present scores for the Test of English as a Foreign Language (TOEFL) before they can be admitted to the university. Undergraduate applicants must achieve a score of 500; graduate applicants a score of 550. Adequate performance on the TOEFL is mandatory for admission.

Applicants should obtain the TOEFL Bulletin of Information and registration forms well in advance. Copies of this bulletin and registration forms are often available at American embassies and consulates, offices of the United States Information Service, United States educational commissions and foundations abroad, bi-national centers, and several private organizations. Those who cannot obtain locally a TOEFL Bulletin of Information should write to: Test of English as a Foreign Language, Box 899, Princeton, New Jersey, USA, 08541.

International student applicants must include a statement of financial support accompanied by a bank statement from their sponsor. Students sponsored by an international organization or home government agency must include a letter of scholarship support specifying this university and the students proposed degree and program of study. For an international student studying in 1986-87 the cost for nonresident tuition and fees was \$4919 based upon 15 units of course work each semester with living expenses estimated at \$8,250, totalling \$13,169 (subject to change). Financial support documents must reflect availability of this amount.

Transcripts of all educational documents in languages other than English must be accompanied by translation into English certified by independent agencies. All academic records must be received directly from the issuing institutions and become official records of the university.

International student applicants who are admitted by the university will be issued form I-20 which is used to obtain an F-1 student visa from a U.S. Embassy or Consulate overseas. Students transferring from a U.S. institution will use form I-20 to apply for transfer authorization through the Immigration and Naturalization Service. Arrival, orientation and registration information from the Office of International Education and Exchange will accompany the admission materials mailed to new students.

Admission Requirements for Postbaccalaureate and Graduate Students

See admissions information in the "Graduate Regulations" section of this catalog.

Cancellation of Admission

A student admitted to the university for a given semester but who does not register in the specified semester will have the admission canceled. The student must file a new application form when again seeking admission and must follow the complete application procedure and meet the current admission requirements.

Admission Requirements for Summer Session Students

Although the quality of the program and most of the course offerings are the same as in the regular session, the university does not require an advance application or transcripts from students registering for credit courses in the summer session. Students normally must be high school graduates, however, and are expected to have satisfied the prerequisites for the courses in which they register. In addition, students are expected to file a request to register in the summer session. Admission to summer session does not grant admission to the regular session.

Readmission of Former Students

A student previously enrolled in the university, planning to return after an absence of more than one semester, must file a new application for admission. A student absent for one semester, and who enrolls elsewhere in the interim, must also file an application for readmission. Unless a leave of absence was granted, catalog requirements at the time of readmission will apply. Please see the "Stop-Out Policy" section in the regulations subchapter of this catalog for further information on applications for readmission.

Former Students in Good Standing

A student who left the university in good standing will be readmitted provided any academic work attempted elsewhere since the last attendance does not change his or her scholastic status. Transcripts of the record of any work attempted in the interim are required.

Former Students Who Were on Probation

A student on probation at the close of the last enrollment will be readmitted on probation provided he or she is otherwise eligible. The student must furnish transcripts of any college work taken during the absence.

Former Students Who Were Disqualified

The readmission of a previously disqualified student is by special action only. Ordinarily the university will consider an application for reinstatement only after the student has remained absent for a minimum of one year following disqualification and has fulfilled all recommended conditions. In every instance, readmission is based on evidence, including transcripts of study completed elsewhere after disqualification, that in the judgment of the university warrants such action. If readmitted, the student is placed on scholastic probation.

Transfer Credits

Evaluation of Transfer Credits

The Office of Admissions and Records will evaluate previous college work in relation to the requirements of Fullerton. All degree candidates will be issued a credit summary during the first semester of attendance which serves as a basis for determining remaining requirements for the student's specific objectives. The admissions office will convert quarter units of credit transferred to the university to semester units by multiplying quarter-unit totals by two-thirds.

Once issued to a student, the evaluation remains valid as long as the student enrolls at the date specified, pursues the objective specified, and remains in continuous attendance. The student will not be held to additional graduation requirements unless such requirements become mandatory as a result of changes in the *California Administrative Code* or the *California Education Code*. If the student does not remain in continuous attendance and has not applied for and been granted a formal leave of absence, the evaluation issued upon readmission will specify the remaining requirements for the student's objectives.

In view of the foregoing regulations, the student should notify the Office of Admissions and Records immediately of a change in the objective specified in the evaluation. While the evaluation for a student remains valid, the student is held responsible for complying with all changes in regulations and procedures which may appear in subsequent catalogs.

Acceptance of Credit

Credit for work completed at accredited institutions, other than course work identified by such institutions as remedial or in other ways as being nontransferable, will be accepted toward the satisfaction of baccalaureate degree and credential requirements at the university within limitations of residence requirements and community college transfer maximums.

Transfer of Credit From a Community College

Upper division credit is not allowed for courses taken in a community college. Credential credit is not allowed for courses in professional education taken in a community college. This does not invalidate credit for preprofessional courses taken at a community college, such as introduction to education, art or design, arithmetic, or music for classroom teachers. After a student has completed 70 units of college credit at a community college, no further community college units may be accepted for unit credit.

Credit by Advanced Placement

Students who have successfully completed courses in the advanced placement program of the College Entrance Examination Board (defined as receiving a score of 3, 4 or 5) shall be granted credit for each advanced placement course toward graduation, advanced placement in the university's sequence of courses and credit for curriculum requirements.

Cal State Fullerton grants credit toward its undergraduate degrees for successful completion of examinations of the Advanced Placement Program of the College Board. Students who present scores of three or better will be granted no more than six semester units of college credit.

Advanced Placement Course	Equivalent Course: CSUF	Semester Units
American History	History 180	3
Art History	Art 201A,B	3-6*
Studio Art	Art 103 or 104 Art 107A or 107B	
Biology	Bio Sci 101	3
Chemistry	Chemistry 120A,B	6**
English	English 101 English 112	3*** 3***
European History	History 110B	3
French	French 101, 102	10
German	German 101, 102	10
Latin 4	Latin 101	3
Latin 5	Latin 101, 102	6
Math A & B	Math 150A	4
Math B & C	Math 150A,B	8
Physics	Physics 211A,B	6****
Spanish	Spanish 101, 102	10

*Consult the Department of Art for applicability of advanced placement examination credit.

**To complete the requirement for Chemistry 120A,B, the student must successfully complete four units of Chemistry 120A and 120B laboratory at Cal State Fullerton.

***Must have a score of 4 or better.

****To complete the requirement for Physics 211A,B the student must successfully complete two units of Physics 211A and 211B laboratory at CSUF.

Credit for Extension and Correspondence Courses

The maximum amount of credit through correspondence and extension courses which may be allowed toward the bachelor's degree is 24 units, if otherwise applicable.

Credit for Noncollegiate Instruction

Cal State Fullerton grants undergraduate degree credit for successful completion of non-collegiate instruction, either military or civilian, appropriate to the baccalaureate, that has been recommended by the Commission on Educational Credit and Credentials of the American Council on Education. The number of units allowed are those recommended in the *Guide to the Evaluation of Educational Experience in the Armed Services* and the *National Guide to Educational Credit for Training Programs*. Students who have at least one year of active military service may be granted six or twelve units of undergraduate credit.

College Level Examination Program

The university shall accept three semester units of credit for each of the following College Level Examination Program (CLEP) examinations, subject to achievement of the scores indicated, provided the examination was not taken previously within one calendar year and that degree credit has not been granted for previous course work at the equivalent or at a more advanced level than for the examination in question.

Examination	Passing score
Mathematics General Exam	50*
College Algebra-Trigonometry	49
Introductory Calculus and Analytic Geometry	48
Statistics	49
General Chemistry	48

*On both parts of examination.

Fullerton may grant additional credit and advanced standing based upon CLEP examination results using as minimum standards:

General Examinations

1. That the student achieve a score at or above the 50th percentile, college sophomore norms.

2. That no unit credit be granted for any test in the general examinations, but that up to six units of general education requirements be waived for each test completed with the appropriate score.

Subject Examinations

1. That the student submit a score at or above the 50th percentile of those in the norm group who earned a mark of C or better.
2. That equivalency to Fullerton courses be determined by the appropriate academic department in conjunction with the Office of Admissions and Records.
3. That university credit shall have not been previously earned in the courses in question.

In no case will credit so awarded count toward residence credit.

English Equivalency Examination

Students passing the California State University English Equivalency Examination shall be awarded six semester units of credit (English 101 and 200—GE categories A.1. & C.4.) provided credit has not been granted previously at the equivalent or more advanced levels. Further, those who pass this optional examination are exempt from the requirement to take the English Placement Test.

Science / Mathematics Equivalency Examinations

Students may receive credit by examination in general mathematics, calculus-analytic geometry, statistics, chemistry, biology, and calculus by passing California State University-approved examinations. Each test offers those who pass three semester units of credit, provided credit has not previously been granted at the equivalent or at more advanced levels.

Registration Procedures



Registration Information

Orientation

Various opportunities are provided for new students to obtain information relating to academic programs, student services and activities, and other aspects of university life. Information about specific programs is published separately.

Registration

Class Schedule: A complete listing of courses offered will be found in the class schedule published prior to the start of each semester. This publication, which may be purchased in the Titan Bookstore, also states detailed information pertaining to the semester including class enrollment and fee payment procedures.

It is important that students familiarize themselves not only with the academic policies stated in this catalog but also with the requirements and procedures in the class schedule as both are used in the selection of classes for the semester.

Registration: Registration is made up of two steps— class enrollment and fee payment, and may be accomplished through early registration by mail, walk-through registration during the month preceding the first day of instruction, or through late registration during the first three weeks of instruction. Most students should find early registration by mail advantageous.

At registration, every student is required to file a study program with the Office of Admissions and Records. The filing of a program by the student and its acceptance by the university obligates the student to perform the designated work to the best of his or her ability. It is emphasized that registration does not become official until all fees have been paid.

Computerized Records System

The student records system, including the registration process, uses the computer. It is a fact of life in a large institution such as Cal State Fullerton that use of the computer is essential. Thus, there are requirements for data cards, code numbers, student file numbers and for meeting precise criteria for recording data, which introduce impersonal elements in the student records system. Despite these conditions, every effort is made to provide courteous, efficient and personalized service to students and the entire university community. To assist in providing

credit be granted for any test in the... but that up to six units of... education requirements be waived for... each test correlated with the appropriate score.

Subject Examinations

1. That the student submit a score at or above the 30th percentile of those in the norm group who earned a mark of C or better.
2. That every way to Fullerton courses be determined by the appropriate academic department in conjunction with the Office of Admissions and Records.
3. That university credit shall have not been previously earned in the courses in question.

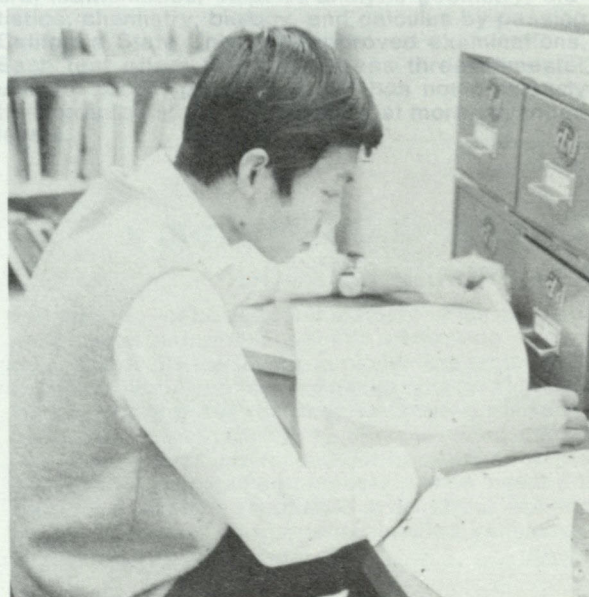
In no case will credit so awarded count toward residence credit.

English Equivalency Examination

Students passing the California State University English Equivalency Examination shall be awarded six semester units of credit (English 101 and 200—OE categories A.1. & C.4.1) provided credit has not been granted previously at the equivalent or more advanced levels. Further, those who pass this optional examination are exempt from the requirement to take the English Placement Test.

Science/Mathematics Equivalency Examinations

Students may receive credit by examination in general mathematics, calculus, analytic geometry, statistics, chemistry, biology and computer by passing



this service, students are urged to be careful and accurate in preparing forms, especially the study program registration form and change of program forms. Accurate preparation of information will assure each student of error-free records.

Controlled Entry Classes

In general, all courses listed in the semester class schedule shall be available to all matriculated students except for appropriate academic restrictions as stated in the schedule and the catalog. These restrictions, including special qualifications and other academic limitations, on class entry shall be published in the class schedule as appropriate footnotes to the designated class or class section and shall be consistent with the catalog.

Late Registration

The last day to register late each semester will be announced in the class schedule. Late registrants will find themselves handicapped in arranging their programs and must pay a \$25 late registration fee in addition to regular fees.

Changes in Program After Registration

Each student is responsible for the program of courses listed at registration. Changes may be made thereafter only by filing a change of program form in the Office of Admissions and Records following procedures announced in the class schedule.

Students may add classes to their programs of study during the first three weeks of instruction. They may drop classes through the first two weeks. After the 11th day of instruction the university expects students to complete all courses in which they are enrolled. If after the 11th day students must withdraw, they are subject to the withdrawal policy contained in the "University Regulations" section of this catalog. In all instances, dropped classes must be reported to the Office of Admissions and Records; students not attending class are not dropped automatically.

Concurrent Enrollment

A student enrolled at the university may enroll concurrently for additional courses at another institution outside the CSU system without advance written approval from the student's academic adviser or the Office of Admissions and Records. Students are reminded that the study load in the proposed combined program of study may not exceed the maximum number of units authorized at this university.

Enrollment at Other CSU Campuses

Fullerton students may enroll at other campuses of The California State University either while concurrently enrolled at Cal State Fullerton or as visitors. There are certain eligibility requirements and enrollment conditions that must be met, including completion of at least one semester at Cal State Fullerton and being in good academic standing. Information and application forms may be obtained from the Office of Admissions and Records.

Visitor Enrollment

Students enrolled at other campuses of The California State University may enroll at Cal State Fullerton while concurrently enrolled at their home campus or as visitors. Information about eligibility requirements, enrollment conditions and application forms are available from the Office of Admissions and Records at the home campus.

Auditors

A properly qualified student may enroll in classes as an auditor. The student must meet the regular university admission requirements and must pay the same fees as other students. See the description of *Audit* in the "University Regulations" section of this catalog under "Administrative Symbols."

Handicapped Students

Students physically handicapped who require assistance should consult the Handicapped Student Services Center prior to the announced semester registration period so that special arrangements can be made.

Veterans

California State University, Fullerton is approved by the Bureau of School Approvals, State Department of Education, to offer programs to veterans seeking benefits under state and federal legislation. All students seeking veterans' benefits must have a degree or credential objective.

Applications for benefits should be filed well in advance of the semester in which the veteran plans to use these benefits to have the authorization at the time of registration.

Schedule of Fees, 1987-88

Tuition is not charged to legal residents of California. The 1987-88 and 1988-89 schedule of fees will be published in the class schedules for those years. The following are the fees and nonresident tuition assessed at the time of preparing this catalog.

Application fee (nonrefundable)

Payable by check or money order at time application is made \$35

All Students (Per Semester Fees)

State University fee
0 to 6 units \$183
7 or more units 315
Facilities fee 3
Associated Students fee 20
University Union fee 49
Instructionally-related activity fee 10

Nonresident and Foreign Visa Students

Nonresident tuition fee (in addition to fees charged all students)
Per unit \$147

Summer Session

Course fee per unit see current bulletin
Associated Students fee \$3
University Union fee 5

Extension Fees

Per unit see current bulletin

Other Fees or Charges

University I.D. card \$3
Late registration fee (in addition to other fees listed above) 25
Check returned from bank for any cause 10
Transcript fee 4
Graduation and diploma fee 15
Failure to meet an administrative time limit 10
Miscellaneous course fee A few courses require fees for registration

Consult current class schedule for further information.

Auditors pay the same fees as others.

Fees are subject to change by the Trustees of The California State University without advance notice.

this service, students are urged to be certain they are in preparing forms, especially the registration form and change of program forms. Accurate preparation of information will assure each student of error-free records.

Controlled Entry Classes

In general, all courses listed in the semester class schedule shall be available to all matriculated students except for appropriate academic restrictions as stated in the schedule and the catalog. These restrictions, including special qualifications and other academic limitations, on class entry shall be published in the class schedule as appropriate. Notes to the designated class or class section and shall be consistent with the catalog.

Late Registration

The last day to register late each semester will be announced in the class schedule. Late registrants will find themselves handicapped in arranging their programs and must pay a \$25 late registration fee in addition to regular fees.

Changes in Program After Registration

Each student is responsible for the program of courses listed at registration. Changes may be



Alan Pattee Scholarships

Children of deceased public law enforcement or fire suppression employees, who were California residents and who were killed in the course of law enforcement or fire suppression duties, are not charged fees or tuition of any kind at any California State University campus, according to the Alan Pattee Scholarship Act, *Education Code* Section 68121. Students qualifying for these benefits are known as Alan Pattee scholars. For further information contact the Admissions/Registrar's Office, which determines eligibility.

Waiver of Fees

Section 32320 of the *California Education Code* provides for the waiver of certain fees other than non-resident tuition, for certain veterans' dependents. Those who meet one or more of the following criteria should present to the university registrar a certificate of eligibility obtained from the Division of Educational Assistance, California Department of Veterans Affairs, on or before the date of registration.

- A. Children of veterans who have service-connected disabilities and whose annual income not including governmental compensation for such service-connected disability does not exceed \$5,000.
- B. Children of veterans killed in action or because of a service-connected disability, where the annual income of such children, including the value of any support received from parents and the annual income of surviving parents, does not exceed \$5,000. No limitations on age or length of residency.

Refund of Fees

Details concerning the fees which may be refunded, and the circumstances under which fees may be refunded, and the appropriate procedure to be followed in seeking refunds may be obtained by consulting Section 41803 (parking fees), 41913 (nonresident tuition), and 41802 (all other fees) of Title 5, *California Administrative Code*. In all cases it is important to act quickly in applying for a refund.

Information concerning the policy and appropriate procedure to be followed in seeking a refund may be obtained from the Office of the Registrar.

Parking Fees

Semester pass (nonreserved spaces):

Regular and limited students (4-wheeled vehicle)	\$33.75
Regular and limited students (2-wheeled vehicle)	8.45
Coin operated gate per exit.75
Summer session (4-wheeled vehicle)	22.50
Summer session (2-wheeled vehicle)	5.65

Typical Student Expenses

Typical school year budgets for California residents living at home or making other housing arrangements will vary widely. It is estimated that, including a \$4,700 yearly allowance for room and board, and \$400 for books and supplies, the total cost will approximate \$7,600 for an unmarried person. Nonresident students must also allow for nonresident tuition in addition to those fees listed above.

Student Services Fee

The student services fee provides financing for the following student services not covered by state funding.

1. *Social and Cultural Development Activities.* Provides for the coordination of various student activities, student organizations, student government and cultural programs.
2. *Counseling.* Includes the cost of counselors' salaries and clerical support, plus operating expenses and equipment.
3. *Testing.* Covers the cost of test officers, psychometrists, clerical support, operating expenses and equipment.
4. *Placement.* Provides career information to students and faculty for academic program planning and employment information to graduates and students.
5. *Financial Aids Administration.* Includes the cost of the counseling and business services provided in connection with the financial aid programs.
6. *Health Services.* Provides health services to students and covers the cost of salaries of medical officers and nurses and related clerical and technical personnel, as well as operating expenses and equipment.
7. *Housing.* Supports personnel who provide housing information and monitor housing services available to students.
8. *Student Services Administration.* Covers 50 percent of the cost of the office of the vice president for student services, which has responsibility for the overall administration of student services.

Associated Students Fee

The law governing The California State University provides that a student body fee may be established by student referendum with the approval of two-thirds of those students voting. The Associated Students fee was established at California State University, Fullerton by student referendum in December 1959. The same fee can be abolished by a

similar two-thirds approval of students voting on a referendum called for by a petition signed by ten percent of the regularly enrolled students (*Education Code*, Section 89300). The level of the fee is set by the Chancellor who may approve a fee increase only following a referendum approved by a majority of the students. The Associated Students fee supports a variety of cultural and recreational programs, child care centers and special student support programs.

Average Annual Costs and Sources of Funds Per Full-Time Equivalent Student

The 19 campuses and the Chancellor's Office of The California State University are financed primarily through funding provided by the taxpayers of California. The total State appropriation to the CSU for 1986-87, including capital outlay and employee compensation increases, is \$1,500,409,000. The total cost of education for CSU, however, is \$1,649,146,315 which provides support for a projected 247,855 full-time equivalent (FTE)* students.

The total cost of education in the CSU is defined as the expenditures for current operations, including

payments made to the students in the form of financial aid, and all fully reimbursed programs contained in State appropriations, but excluding capital outlay appropriations. The average cost of education is determined by dividing the total cost by the total FTES. The average cost is further differentiated into three categories: State support (the State appropriation, excluding capital outlay), Student Fee support, and support from other sources (including Federal funds).

Thus, excluding costs which relate to capital outlay (i.e., building amortization), the average cost of education per FTE student is \$6,654. Of this amount, the average student fee support per FTE is \$872. The calculation for this latter amount includes the amount paid by nonresident students.

Averages do not fit all students alike or even any specific student. To arrive at an average figure that is meaningful, the costs outlined above exclude "user fees" for living expenses, housing and parking as well as costs for extension and summer session work. Computations are based on full-time equivalent students, not individuals, and costs are prorated by system totals, not by campus. The average costs for a full-time equivalent student in the system are shown in the following chart:

Source of Funds and Average Costs for 1986/87 CSU Budget (Projected Enrollment: 247,855 FTE)

	Amount	Average Cost Per Student (FTE)	Percentage
Total Cost of Education	\$1,649,146,315**	\$6,654	100.0
—State appropriation	1,389,847,000***	5,607	84.3
—Student Fee support	216,047,708	872****	13.1
—Support from other sources	43,251,607	175	2.6

* For budgetary purposes, full-time equivalent (FTE) translates total head count into total academic student load equivalent to 15 units per term. Some students enroll for more than 15 units; some students enroll for fewer than 15 units.

** The total cost of education does not include the amount related to lottery and the capital investment of the CSU. The estimated replacement cost of all the system's permanent facilities and equipment on the 19 campuses is currently valued at \$5.3 billion, excluding the cost of land.

*** This figure does not include the capital outlay appropriation of \$110,562,000.

**** The average costs paid by a student include the State University Fee, Student Services Fee, Application Fee, Catalog Fee and nonresident tuition. Individual students may pay less than \$872 depending on whether they are part-time, full-time, resident or nonresident students.

Financial Aid

Eligibility Requirements

The following eligibility requirements apply to all financial aid programs except emergency loans and scholarships.

In order to be eligible for financial assistance, applicants must demonstrate financial need. Financial need is the difference between the reasonable and approved costs incurred by a student at CSUF and all of the resources available to the student, including contributions from parents, student (and spouse, if applicable), and any other aid the student may be eligible to receive.

In addition to demonstrating financial need, all applicants must:

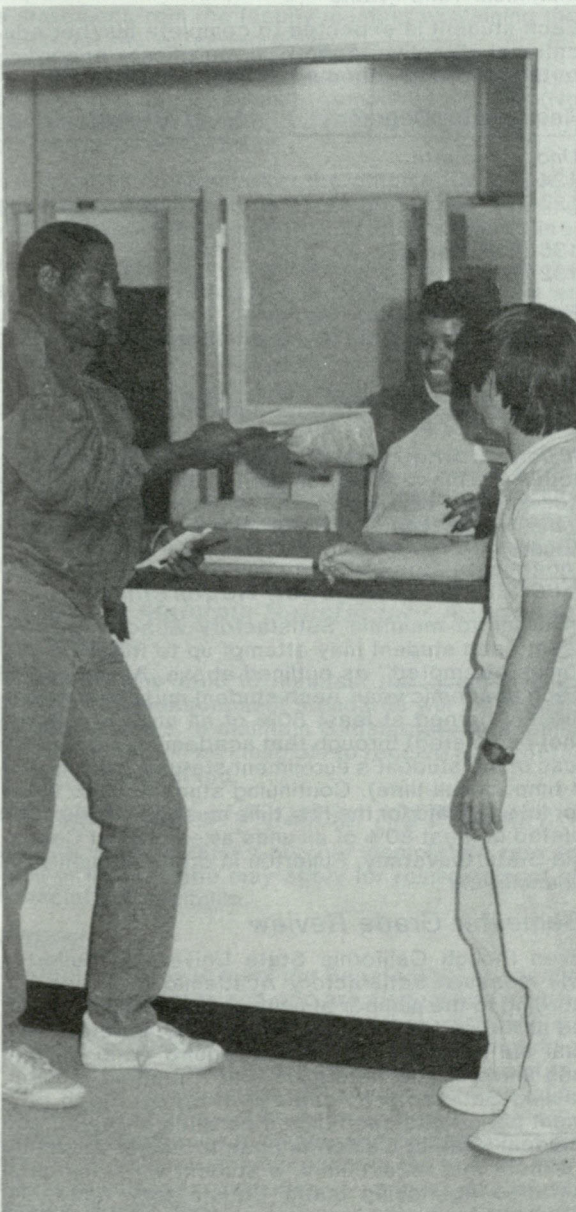
1. be a national of the United States or be in the United States for other than a temporary purpose and intend to become a permanent resident thereof, or be a permanent resident of the Trust Territory of the Pacific Islands (Holders of student visas are not eligible for aid);
2. be accepted for enrollment as at least a half-time student, or in the case of a student already attending the university, be enrolled and in good standing as at least a half-time student;
3. maintain satisfactory academic progress in the course of study according to the standards and practices of the university;
4. not be in default on any loan made from a student loan fund and not owe a refund on grants previously received for attendance at any college or university.
5. submit a completed Student Aid Application for California (SAAC) or an Application for Federal Student Aid if the student wants only a Pell Grant, and all documentation requested by the Financial Aid Office; and
6. be registered for the Draft with the Selective Service or certify that he/she is not required to register.

Application Periods

The deadlines listed below are approximate and are subject to annual changes. Consult with the Financial Aid Office for current dates.

Emergency Loans: Emergency loans are available from the first day of classes until 30 days before the end of the semester. (See director of financial aid for exceptions.)

Scholarships: Applications for scholarships are due in the Financial Aid Office by mid-March. Students should contact the Financial Aid Office for an application in mid-February.



Bureau of Indian Affairs Grants: Consult with the BIA for exact dates. The application deadline is usually in mid-June.

GSL and CLAS Loans: Apply after June 1 for the fall semester and academic year, and after November 1 for the spring semester.

Cal Grants and Graduate Fellowships: First-time applicants must complete and mail the Student Aid Application for California (SAAC) and the SAAC Supplement form by February 11 for the following academic year.

Pell Grant only (no other aid desired): Apply by May 1 of the academic year for which aid is desired.

All Other Aid—Priority is given to SAAC applications mailed between January 1 and March 1 for the next academic year.

Rights and Responsibilities of Students Receiving Aid

Rights: All students are entitled to and are guaranteed fair and equitable treatment in the awarding of financial aid. In addition, there shall be no discrimination of any kind. Appeals procedures exist for anyone who feels that a violation has occurred; consult with the director of financial aid for details.

All students have the right to receive full and open information about various financial aid programs and the status of their eligibility. In addition, they have the right to know the selection and review processes used in awarding financial aid.

All students have the right to know the costs of attending the institution, the refund policies in case of withdrawal from the university, the academic programs offered by the university, the faculty and physical facilities of the institution, and data regarding student retention at the university.

Responsibilities: All financial aid recipients agree to carry and complete a specific number of units each semester, report graduation or withdrawal from the university and to notify the Financial Aid Office of any changes in their financial or marital status, or unit load.

Recipients of financial aid must use the funds only to meet education costs. Any other use of the funds is prohibited by law.

Students who are receiving financial aid must maintain satisfactory academic progress. See the section below for details.

Satisfactory Academic Progress Standards

The Higher Education Act, as amended, requires that a student maintain satisfactory academic progress in the course of study (s)he is pursuing according to standards and practices set by each college and university.

Students should be aware that these standards must be the same or stricter than the standards for a student enrolled in California State University, Fullerton in the same academic program who is not receiving assistance under a Title IV program.

Qualitative Standards (Measurement by Grades)

All students, including financial aid recipients, must maintain scholastic academic progress as outlined in the California State University, Fullerton catalog.

Quantitative Standard (Measurement by Units Attempted, not Completed)

Maximum Time Frame

Each student is expected to complete his/her educational objective, degree, or certificate according to the following schedule:

Required for Degree	Max. Attempted Units
Undergraduate:	
124 units (B.A.)	155
124-134 depending upon major (B.S.)	155-168 depending upon major
135 (B.S. Engrg)	169
132 (B.M., B.F.A.)	165
Postbaccalaureate:	
Depends upon dept.	Dept. Req. - 80%
Graduate:	
30 or more depending upon program	38

A student who cannot complete his/her objective within the maximum attempted units outlined above according to his/her degree standing will *not* be eligible for any financial aid from any federal or state source.

Successful Completion Requirement

In order to maintain Satisfactory Academic Progress, each student may attempt up to the maximum "units attempted" as outlined above. At the end of each academic year, each student must have cumulatively earned at least 80% of all units attempted (not completed) through that academic year regardless of the student's enrollment status (1/2-time, 3/4-time, or full-time). Continuing students who apply for financial aid for the first time must also have completed at least 80% of all units attempted at California State University, Fullerton in order to qualify for financial aid.

Semester Grade Review

Even though California State University, Fullerton will measure Satisfactory Academic Progress according to the number of units successfully completed at the end of each academic year, federal financial aid program regulations require each college and university to determine that a student is maintaining Satisfactory Academic Progress each payment period and each time it certifies a Guaranteed Student Loan or California Loan to Assist Students. To meet this requirement, a student will have been certified as having made Satisfactory Academic Progress for payment purposes at the end of the fall

semester if the student meets the "qualitative standards" as outlined above.

Determination of Units Completed

The following grades *will* be counted in determining units successfully completed: A, B, C, D, CR (credit).

SP (Satisfactory Progress) and RD (Report Delayed) will be temporarily considered as units completed provided these designations are replaced with an acceptable final grade within one calendar year from the beginning date of the semester. If the final SP grade is not posted within one year, the student must submit a written appeal to the Financial Aid Office. If a Report is Delayed beyond one year, the student must submit to the Financial Aid Office a statement from the faculty member explaining the cause for the extended delay.

The following grades will count as units attempted but *will not* count as units completed: F, NC (No Credit), W (Withdrawal), AU (Audit), I (Incomplete), U (Unofficial Withdrawal).

If a grade is changed after the official posting for a semester, it is the student's responsibility to bring verification of the change to the Financial Aid Office.

Repeated Courses: A repeated course in which the student initially received a D or F will not count as units attempted or completed since an improved grade will only result in a grade change and not additional unit credit. A repeated course in which a student withdrew or received an unauthorized incomplete will count as units attempted and completed.

Remedial Courses will be considered as units completed for purposes of reviewing a student's Satisfactory Academic Progress only when the university or department requires a student to take a remedial course(s) as part of his/her program whether or not the student receives unit credit towards graduation.

Failure to Maintain Satisfactory Academic Progress

A student who fails to maintain the qualitative or quantitative measurement standards will be defined as having failed to maintain Satisfactory Academic Progress and will be ineligible to receive any federal or state financial aid.

Reinstatement of Financial Aid Eligibility

Once a student raises his/her completion rate to 80% or more, (s)he may apply for reinstatement of financial aid eligibility.

Appeal

Students who fail to meet the Satisfactory Academic Progress standards and who are disqualified from financial aid eligibility may appeal their disqualification to the Director of Financial Aid by completing and submitting a written appeal within 10 days of receipt of the "Notification of Financial Aid Disqualification." No appeal will be approved unless the mitigating circumstance is unique and compelling, e.g., documented injury which prevented the student from attending classes, parental or spousal death, extended illness, etc.

The "Financial Aid Petition" is available in the Financial Aid Office. The Director of Financial Aid will reply to the student's appeal in writing within 10 days of its receipt in the Financial Aid Office.

Eligibility for Multiple Degrees

Students will be eligible to receive financial aid towards the completion of their first bachelor's degree and towards their first graduate degree. Funding for a second bachelor's or master's degree will not be provided.

Refund Policy

As stated in the appropriate CSUF Class Schedule, a student may be entitled to a refund of fees if he/she withdraws from the University or drops units. If a student received financial aid, fee refunds will be credited partially or completely to various financial aid accounts according to the formulas below:

Since financial aid is awarded to help meet educational costs, financial aid is considered to be used first for direct educational costs (fees). Therefore, if a student withdraws and is scheduled to receive a refund of fees, all or part of this refund will be used to reimburse the financial aid program(s) from which the student received funds.

If a student received financial aid in excess of direct fees, a repayment of additional financial aid funds may be required.

I. Refund to be returned to Title IV programs:

A = Amount of fee refunded

B = Total Title IV aid (excluding CWS) for semester Total aid awarded (excluding CWS) for semester.

A x B = Amount of refund to Title IV

II. Distribution order of Title IV portion of refund among Title IV programs:

1. NDSL (not to exceed the amount disbursed)
2. SEOG (not to exceed the amount disbursed)
3. PELL (not to exceed the amount disbursed)
4. GSL (not to exceed the amount disbursed)
5. CLAS (not to exceed the amount disbursed)

III. When the GSL is the only Title IV aid received (excluding CWS) the following distribution formula will be used:

Refund to GSL = Amount of GSL Estimated
cost of attendance for
loan period

IV. Any remaining refund amount not credited to Title IV programs as per the above formulas will be distributed as follows:

1. EOPG (not to exceed the amount disbursed)
2. SUG (not to exceed the amount disbursed)
3. Student (remaining amount of refund)

Repayment Policy

Since financial aid is awarded to help meet educational costs, financial aid is considered to be used first for direct educational costs (fees). Therefore, if a student withdraws and is scheduled to receive a refund of fees, all or part of this refund will be used to reimburse the financial aid program(s) from which the student received funds.

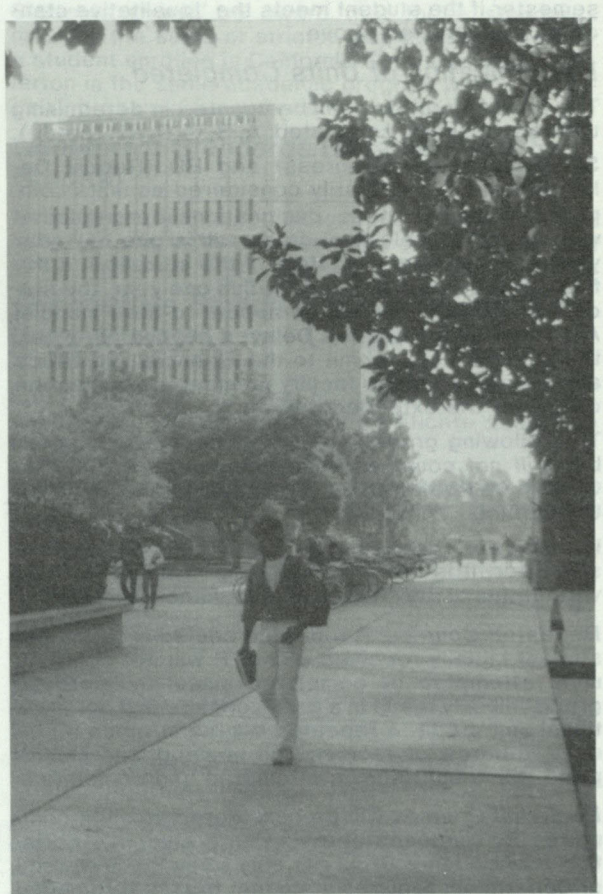
If a student received financial aid in excess of direct fees, a repayment of additional financial aid funds may be required.

Students who receive financial aid and later terminate their enrollment by dropping out or by withdrawing and who received cash disbursements of Title IV financial aid for payment of their non-institutional costs require institutional review to determine if there has been an overpayment, and therefore, if a repayment is required. Repayment designates the amount that a student must repay of the funds he/she received in cash that could not have reasonably been spent for non-institutional costs during the portion of the term that the student was enrolled.

Total Title IV funds disbursed in cash to the student minus GSL, CLAS, CWS minus non-institutional costs paid by the student from the disbursement for the portion of the payment period during which the student was enrolled (room, board, books, supplies, transportation, miscellaneous expenses) = overpayment.

$$\text{Overpayment X Total amount of Title IV (minus CWS, GSL, CLAS)} \div \text{Total amount of aid (minus CWS, GSL, CLAS)} = \text{Title IV Repayment}$$

Order of distribution for repayment: NDSL, SEOG then Pell.



University Regulations

Each student is responsible for meeting the requirements printed in the university catalog and all published regulations of the university.

The university establishes certain academic policies and requirements which must be met before a degree is granted. These include major and unit requirements and prerequisites. While advisers, directors, deans and faculty will provide a student with information and advice, responsibility for meeting these requirements rests with the student. Since failure to satisfy these requirements may result in the degree being withheld, it is important for each student to become thoroughly acquainted with all regulations. The catalog and the semester class schedule, available in the Titan Bookstore, are the best sources of information on current policy and regulations.

The student also has the responsibility for securing the consent of the instructor before enrolling in a course with prerequisites that the student has not completed.

To ensure receipt of timely information and accurate grade reports from the university, each student must keep the Office of Admissions and Records informed of changes in personal data, including changes in name, address and program of study. Each student is mailed a student data verification each semester during the third week of classes to ensure the accuracy of demographic and official enrollment data for that term; enrollment corrections must be reported to the registrar by the 20th day of classes, using the Change of Program form. Other corrections should be reported on the form and returned to the Office of Admissions and Records.



Enrollment Regulations

Unit of Credit

Each semester unit represents three hours of university work per week for one semester. Courses are of three types:

- (1) Lecture—one hour in class plus two hours of study.
- (2) Activity—two hours of class plus one hour of study.
- (3) Laboratory—three hours in class.

Some courses may combine two or more of these types. All required courses carry unit credit.

Classification in the University

Undergraduate students who have completed 0-29 semester units of work are classified as freshmen, 30-59 semester units as sophomores, 60-89 semester units as juniors, and 90 or more as seniors.

Maximum Number of Units

Undergraduate students' requests to enroll for more than 19 units must be approved by the student's advisor and the department chair of the major. If such requests are denied, appeals may be made to the appropriate school dean. (Undeclared majors must receive the approval of the director of academic advisement.) The minimum full-time program is 12 units.

A student whose academic record justifies a study list in excess of the normal may request to be allowed to enroll for extra units. Request forms may be obtained from the Office of Admissions and Records. In general, only students with superior academic records are allowed to enroll for more than the maximum. In addition, the need to enroll for the extra study must be established. Factors such as time spent in employment or commuting, the nature of the academic program, extracurricular activities and the student's health should be considered in planning a study program. Students who are employed or have outside responsibilities are advised to reduce their program of study.

The minimum and maximum units of a full-time program of study for graduate students are defined in the "Graduate Regulations" section of this catalog.

Graduate Level Courses

Graduate level (500) courses are organized primarily for graduate students. Undergraduate students may be permitted to enroll in a graduate level course if:

- a. they have reached senior status (completed a minimum of 90 semester units)
- b. have the academic preparation and prerequisites required for entry into the course
- c. gain the consent of the instructor.

Students wishing to use 500-level coursework taken during their undergraduate degree toward a master's degree should read the section on Postgraduate Credit.

Class Attendance

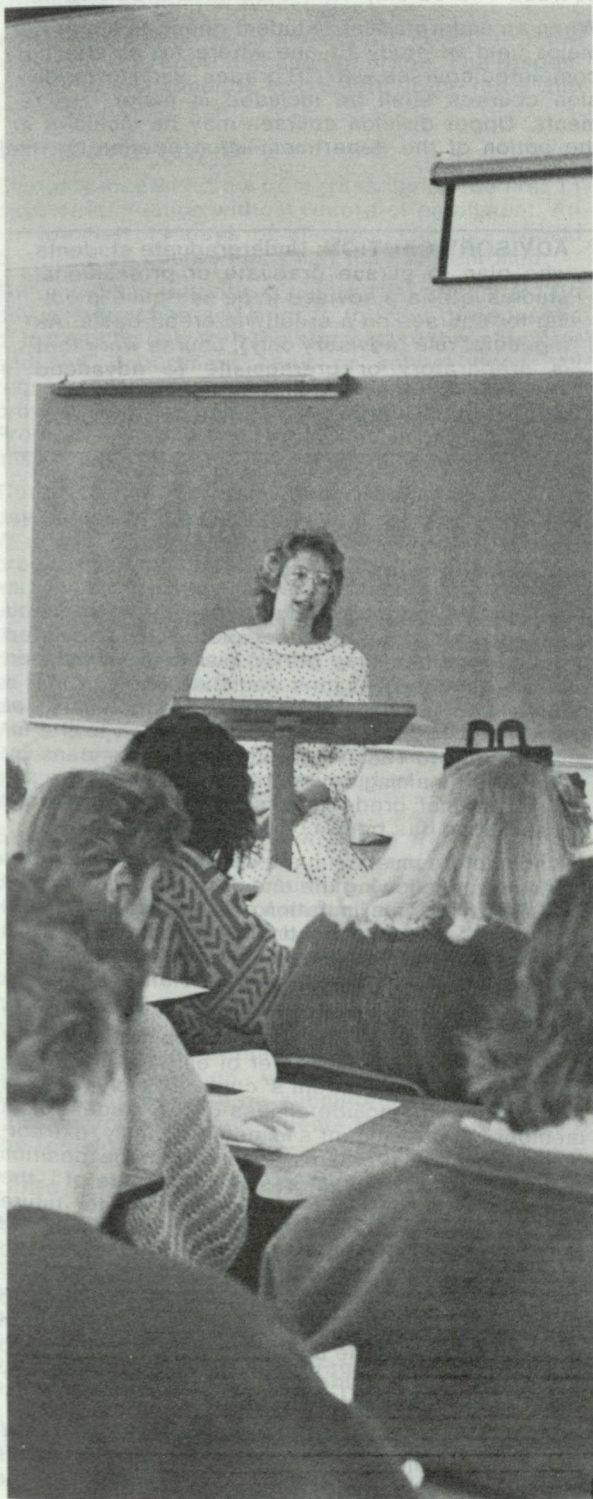
While class attendance is not recorded officially by the university, regular attendance in class is often essential to success in a course. The policy on class attendance is within the discretion of the individual faculty member and shall be announced by the faculty member at the first class meeting of the semester.

Initial Class Meeting

It is especially important that students attend the first meeting of a class. Students absent from the first meeting and who fail to notify the instructor or departmental office no later than 24 hours after the class meeting may be denied admission to the class. Instructors may deny admission to absentees to admit persons on waiting lists.

Instructor-Initiated Drops

A student who registers for a class and whose name appears on the first-day-of-class list should attend all class meetings in the first week. If the student is absent without notifying the instructor or departmental office within 24 hours after any meeting missed during that week, the student may then be dropped administratively from the class by the instructor; *however, ultimately it is the student's responsibility to ensure that he/she has been dropped from the class and if not, to follow the appropriate procedures for withdrawing from the class.* An instructor may also administratively drop a student who does not meet prerequisites for the course. These administrative withdrawals shall be without penalty and must be filed by the instructor with the registrar no later than the 11th day of instruction.



Grading Policies

Grading System

Every student of the university will have all course work evaluated and reported by the faculty using letter grades or administrative symbols.

The university uses a combination of traditional and nontraditional grading options as follows:

Traditional

Option 1. Letter grades, defined as:

- A—outstanding performance
- B—above average performance
- C—average performance
- D—below average performance, though passing
- F—failure

Nontraditional

Option 2. CR (Credit) for satisfactory (equivalent to C or better in undergraduate courses; B or better in graduate courses) and NC (No Credit) for less than satisfactory work.

When, because of circumstances, a student does not complete a particular course, or withdraws, certain administrative symbols may be assigned by the faculty. Grades and symbols are listed in the chart on the following page together with grade-point values. The chart also illustrates the academic book-keeping involved for all grades and symbols used.

Selection of Grading Option

Selection of a grading option, with certain exceptions, is the responsibility of the student. Graduate students must use Option 1 for courses that are on study plans leading to master's degrees. Undergraduates must use Option 1 for major, minor and general education requirements.

Exceptions are those courses designated by the faculty to be graded solely on an Option 2 basis.

These courses will be so designated in the class schedule (and shall not be changed by the faculty after publication of the class schedule) for each semester and may be included in major, core or special program requirements.

Students shall inform the registrar up to the end of the third week of classes regarding the selection of grading options in designated courses. If a student does not do so, Option 1 will be used.

The faculty shall grade all students using the traditional A, B, C, D or F grades except in Credit/No Credit courses, and the registrar shall make the necessary changes from A, B, C, D or F, converting A, B, C to Credit, and D and F to No Credit in undergraduate courses and A, B to Credit, and C, D and F to No Credit in graduate courses. In those courses offered only on a Credit/No Credit basis, the instruc-

tor shall assign grades of CR or NC or appropriate administrative symbols.

Nontraditional Grade Option

A nontraditional grading option is available to undergraduate students, nonobjective graduate students and to classified graduate students for courses not included in the approved study plan. Any student attempting a course using the nontraditional grading option must meet the prerequisites for that course. Each student shall be permitted to select courses in subjects outside of the major, minor and general education requirements for enrollment on a Credit/No Credit basis (grading Option 2). The phrase "major requirements" shall be taken to include core plus concentration (or option) requirements in departments using such terms, and professional course requirements in teacher education curricula. A student in any one term may take one course under Option 2. In addition, he or she may enroll in a required course offered only under Option 2; however, a maximum of 36 units of Credit/No Credit courses, including those transferred from other institutions, may be counted toward the baccalaureate.

Under Option 2 the term "Credit" signifies that the student's academic performance was such that he or she was awarded full credit in undergraduate courses with a quality level of achievement equivalent to a C grade or better. In all graduate level and professional education courses *Credit* signifies academic performance equivalent to B or A grades. *No Credit* signifies that the student attempted the course but that the performance did not warrant credit toward the objective.

Grade or Symbol	Units Attempted	Units Earned	Grade Point Value	Full Credit
Option 1				
A	Yes	Yes	4	Yes
B	Yes	Yes	3	Yes
C	Yes	Yes	2	Yes
D	Yes	Yes	1	No
F	Yes	No	0	No
Option 2				
CR	*	Yes	None	Yes
NC	*	No	None	No
Administrative Symbols				
I (Incomplete authorized)	†	No		
U (Unauthorized incomplete)	Yes	No	0	No
W (Withdrawal)	No	No	None	No
WF (Withdrawal)	Yes	No	0	No
AU (Audit)	No	No	None	No
SP (Satisfactory progress)	No	No	None	No
RD (Report delayed)	No	No	None	No
TOTALS	Used In GPA	Counted in Objective	Used Toward GPA	

*Credit/No Credit course units are not included in GPA computations.
†If not completed within one semester the I will be changed to an F (or NC).

Ordinarily, a student shall be limited to one nonmajor course per term using this option, exclusive of courses offered only on a Credit/No Credit basis.

When an undergraduate student changes his or her major field of study to one where he or she has completed courses with CR grades, such lower division courses shall be included in major requirements. Upper division courses may be included at the option of the department upon petition by the student.

ADVISORY CAUTION: Undergraduate students who plan to pursue graduate or professional studies later are advised to be selective in opting for courses on a credit/no credit basis. As a general rule (advisory only), course work that is preparatory or prerequisite to advanced specialized study should be completed and evaluated on a letter grade basis and not Credit/No Credit.

Administrative Symbols

Incomplete Authorized (I)

The symbol I signifies that a portion of required course work has not been completed and evaluated in the prescribed time period owing to unforeseen but fully justified reasons and that there is still a possibility of earning credit. It is the responsibility of the student to bring pertinent information to the instructor and to reach agreement on the means by which the remaining course requirements will be satisfied. A final grade is assigned when the work agreed upon has been completed and evaluated.

An Incomplete must be made up during the semester immediately following the end of the term in which it was assigned. This limitation prevails whether or not the student maintains continuous enrollment. Failure to complete the assigned work will result in an Incomplete being changed to an F or an NC.

A grade of Incomplete may be given only when, in the opinion of the instructor, a student cannot complete a course during the semester of enrollment for reasons beyond the student's control. Such reasons are assumed to include: illness of the student or of members of the student's immediate family, extraordinary financial problems, loss of outside position and other exigencies. In assigning a grade of I, the instructor shall file with the department for future reference and student access a Statement of Requirements for Completion of Course Work. The requirements shall not include retaking the course. The instructor will also designate a time limit (up to one semester) for completing requirements. Upon request, a copy of the document will be furnished to the student. The student should review this statement at the earliest opportunity.

The statement of requirements will include an indication of the quality of the student's work to date. This not only provides an interim evaluation for the

student but assists the department chair in assigning a final grade in those instances where the instructor is no longer available.

When the specific requirements are completed, the instructor will report a change of grade. The responsibility for changing the incomplete grade rests with the instructor.

Withdrawal (W, WF)

Students may withdraw from class during the first 11 days of instruction without record of enrollment. After the first 11 days of classes, students should complete all courses in which they are enrolled.

The university authorizes withdrawal after the 11th day of instruction and prior to the last three weeks of instruction only with the approval of the instructor and the department chair or school dean. All requests for permission to withdraw and all approvals shall be made in writing on the Change of Program form and shall be filed at the Office of Admissions and Records by students or their proxies.

The student withdrawing from class after the 20th day of instruction shall receive a grading symbol of W or WF. The symbol W signifies that the student dropped the course after the 20th day of instruction and that the quality of performance at the time of withdrawal was C or better. The symbol WF signifies that the student dropped the course after the 20th day of instruction and that the quality of performance at the time of withdrawal was below average. W's are not counted in grade-point average calculations; WF's are counted in the same way as F grades. When signing the Change of Program form, the instructor shall indicate to the student whether W or WF will be given.

Students may not withdraw during the final three weeks of instruction except in cases, appropriately documented, such as accident or serious illness, where the assignment of an Incomplete is not practicable. Ordinarily, withdrawals of this nature will involve withdrawal from all classes except that Credit or Incomplete Authorized (I) may be assigned for courses in which students have completed sufficient work to permit an evaluation to be made. Petitions for permission to withdraw from all classes under these circumstances, with authorizations as described above, shall be submitted with Change of Program forms by the students (or their proxies) to the registrar.

Unauthorized Incomplete (U)

The symbol U indicates that an enrolled student did not withdraw from the course but failed to complete course requirements. It is used when, in the opinion of the instructor, completed assignments or course activities or both were insufficient to make normal evaluation of academic performance possible. For purposes of grade-point average computations this symbol is equivalent to an F.

A student may petition for a retroactive withdrawal provided the student can document both the serious

and compelling reason or circumstances that required the withdrawal and the date of such withdrawal. Such a petition must be filed within 30 days after the first class day of the following semester.

Petitions for retroactive withdrawal may be submitted for withdrawal in individual courses.

ADVISORY NOTE: Students who unofficially withdraw and who are receiving financial aid or benefits which are dependent on completion of specified course units are advised that they may have such benefits suspended and may be subject to repayment of allowances received after date of unofficial withdrawal.

Audit (AU)

The symbol AU is used by the registrar in those instances where a student has enrolled in a course either for information or other purposes not related to the student's formal academic objective. Enrollment as an auditor is subject to the permission of the instructor, provided that enrollment in any course as an auditor shall be permitted only after students otherwise eligible to enroll in the course on a credit basis have had an opportunity to do so. Auditors are subject to the same fees as credit students and regular class attendance is expected. Once enrolled as an auditor, a student may not change to credit status unless such a change is requested prior to the last day to add classes. A student who is enrolled for credit may not change to audit after the third week of instruction. An auditor is not permitted to take examinations in the course; therefore, there is no basis for evaluation nor a formal grade report.

Satisfactory Progress (SP)

The SP symbol is used in connection with thesis, project or similar courses that extend beyond one academic term. It indicates that work is in progress, and has been evaluated and found to be satisfactory to date, but that assignment of a final grade must await completion of additional course work. Cumulative enrollment in units attempted may not exceed the total number applicable to the student's educational objective. Work is to be completed within a stipulated period which may not exceed one year except for graduate degree theses or projects for which the time may be longer, but may not exceed the overall limit for completion of all master's degree requirements. Any extension of time must receive prior authorization by the dean of the school (or the dean's designee) in which the course is offered.

Report Delayed (RD)

The RD symbol is used where a delay in the reporting of a final grade is due to circumstances beyond the control of the student. The symbol is assigned by the registrar and will be replaced as soon as possible. An RD shall not be included in calculation of a grade-point average.

Student Records

Grade Reports to Students

A report of the final grades assigned in classes is sent to each student at the end of each semester. Many students also leave self-addressed post cards for instructors of specific courses to send them earlier reports.

Class Grade-Point Averages

Beginning with the fall semester 1978, information is included on student grade reports and permanent academic records that is intended to depict the level of achievement of students in relation to other students in a particular class. The information is displayed in parentheses before each course grade. The first set of figures indicates the number of students officially completing the course and the second set is the class grade-point average. In making the computations, marks of W, I, CR, NC, and SP are excluded. This same information is displayed for summer session classes, but not for extension or intersession classes sponsored by the Office of Extended Education.

Examinations

Final examinations, if required by the instructor, will be given at times scheduled by the university. Once established, the final examination schedule may not be changed unless approved by the dean of the school. No makeup final examination will be given except for reason of illness or other verified emergencies.

Credit by Examination

Students may be granted credit toward the baccalaureate and to meet curriculum requirements in certain designated courses by the satisfactory completion of challenge examinations in the courses. The examinations are to be comprehensive and administered by the sponsoring departments. Well in advance of the semester in which a challenge examination is to be administered, the student, using the appropriate university form, will secure written approval of his or her major advisor and the chair of the department in which the course is offered. In general, prior work or academic experience will be required.

Courses to be offered as challenge examinations will be determined by the academic departments. Matriculated students may either enroll in these courses during registration or add them during the first three weeks of the semester. The examination must be administered not later than the end of the third week of instruction.

Upon successful completion of the examination, the instructor will report the grade of CR. Students who fail the challenge examination may elect to continue the course for credit or may officially withdraw from the course through the normal class withdrawal procedure. The challenge examination for any course may be administered only once.

A maximum of 30 credits can be earned by challenge examination, including those earned by advanced placement. Credit by examination may not be used to fulfill the minimum residence requirements.

Grade-Point Averages

The numerical grade-point values in the grading system chart are intended to give an exact determination of a student's scholastic standing. To compute the grade-point average for course work at Fullerton, the grade-point value of each grade, with the exception noted in the "Repetition of Courses" section, is multiplied first by the unit value of each course to obtain a total of all grade points earned. The total is then divided by the total units attempted in all courses in which grades of A, B, C, D, F, U and WF were received. The resulting figure is the grade-point average.

Repetition of Courses

Undergraduate students may repeat courses at California State University, Fullerton for which D or failing grades were earned either at Cal State Fullerton or at other institutions; in repeating such courses, the traditional grading system shall be used. In computing the grade-point average of a student who repeats courses in which he or she received D or failing grades, only the most recently earned grades and grade points shall be used for the first 16 units repeated. Nevertheless, the original grade on the academic record shall not be changed or eradicated.

In exercising this option, an undergraduate student must repeat the course at Cal State Fullerton and may request application of this policy when a course has been repeated. This should be accomplished using the appropriate form, immediately following the term in which the course has been completed, so that the student's grade-point average can be revised. In the absence of student requests, courses successfully repeated are routinely credited by the Office of Admissions and Records during degree requirement reviews at the time of graduation.

This policy may also be applied to courses in which U or WF grades were assigned, as a means of eliminating such marks from grade-point average computations.

In the case of any repetition beyond the 16-unit limit or in courses for which a C or better grade was awarded, both grades are considered in computing grade-point averages. Successful repetition of a course originally passed carries no additional unit credit toward a degree or credential except for certain courses such as independent study, practicum, or other courses specified in this catalog as "may be repeated for credit."

Students transferring from other colleges where courses were taken and repeated may be eligible for consideration under this policy. In general, the policy of the college where the course was repeated shall be followed; however, units for the courses taken and repeated at the transfer institution are included in the 16-unit limitation.

Grade Changes

The university recognizes the long-standing prerogatives of faculty to set standards of performance and to apply them to individual students. The university will seek to correct injustices to students but at the same time believes that the instructor's judgment at the time the original grade is assigned is better than a later reconsideration of an individual case. Equity to all students is of fundamental concern. The following policies apply to changes of grades except for changes of Incomplete Authorized and Unauthorized Incomplete symbols.

1. In general, all course grades are final when filed by the instructor in the end-of-term course grade report. Each student is notified by mail of the grades earned during the term, and these grades become a part of the official record.
2. A change of grade may occur only in cases of clerical error, administrative error, or where the instructor reevaluates the original course assignments of a student and discovers an error in the original evaluation. A clerical error is an error made by the instructor or an assistant in calculating or recording the grade. A change of grade shall not occur as a consequence of the acceptance of additional work or reexamination beyond the specified course requirements.
3. A request for a change of grade shall be initiated by the student affected and shall be directed to the instructor within 60 calendar days of the first day of classes of the regular semester following the award of the original grade. If the instructor determines that there is a valid basis for the change, a Change of Grade form shall be used to notify the Office of Admissions and Records. These forms are available in department offices. If the instructor determines that there is not a valid basis for the change, and denies the student's request, the instructor's decision is final. The student may file a petition with the Academic Appeals Board on the basis of capricious or prejudicial treatment by the instructor.
4. The Change of Grade form completed and signed by the instructor, noting the basis for the change, shall not be accepted by the registrar unless approved separately by the department chair and school dean.
5. If a request for change of grade is initiated after 60 calendar days into the following semester, it will be approved only in extraordinary circumstances. An explanation of such circumstances must accompany the request and must be approved separately by the instructor, department chair, and the dean before acceptance by the registrar.

Academic Dishonesty

Academic dishonesty (usually cheating or plagiarism) almost always involves an attempt by a student to show possession of a level of knowledge or skill which he or she does not possess.

Cheating is defined as the act of obtaining or attempting to obtain credit for work by the use of any dishonest, deceptive or fraudulent means. Examples of cheating include, but are not limited to: using notes or aids or the help of other students on tests and examinations in ways other than those expressly permitted by the instructor, plagiarism as defined below and tampering with the grading procedures.

Plagiarism is defined as the act of taking the specific substance of another and offering it as one's own without giving credit to the source. When sources are used, acknowledgment of the original author or source must be made following standard scholarly practice.

The initial responsibility for detecting and dealing with academic dishonesty lies with the instructor concerned. An instructor who believes that an act of academic dishonesty has occurred is obligated to discuss the matter with the student involved. The instructor should possess reasonable evidence, such as documents or personal observation. However, if circumstances prevent consultation with the student, the instructor may take whatever action, subject to student appeal, the instructor deems appropriate.

An instructor who is convinced by the evidence that a student is guilty of academic dishonesty shall:

1. Assign an appropriate academic penalty. This may range from an oral reprimand to an F in the course. To the extent that the faculty member considers the academic dishonesty to manifest the student's lack of scholarship and to reflect on the student's academic performance and academic integrity in a course, the student's grade should be adversely affected. Suggested guidelines for appropriate actions are an oral reprimand in cases where there is reasonable doubt that the student knew that his or her action constituted academic dishonesty; an F on the particular paper, project or examination where the act of dishonesty was unpremeditated, or where there were significant mitigating circumstances, or an F in the course where the dishonesty was premeditated or planned.
2. Report to the student involved, to the department chair, and to the vice president for student services the alleged incident of academic dishonesty, including relevant documentation, and make recommendations for action that he or she deems appropriate.

The vice president for student services shall maintain an academic dishonesty file of all cases of academic dishonesty with the appropriate documentation. Students shall be informed when their names are inserted into the file and provided with copies of any appeals or disciplinary procedures in which they may become involved. The vice president for student services or his or her designees may initiate disciplinary proceedings under Title 5, *California Administrative Code*, Section 41301, and Chancellor's Executive Order 148; when two or more incidents involving the same student occur, he or she shall do so. Opportunities for appeal regarding sanctions re-

sulting from disciplinary proceedings are provided by Executive Order 148.

A student may appeal any action taken on a charge of academic dishonesty under the University Policy Statement 300.030, "Academic Appeals." If the Academic Appeals Board decides that a student is innocent of academic dishonesty, then no entry shall be made in the academic dishonesty file.

If the Academic Appeals Board decides either that a student is innocent of academic dishonesty, or that a faculty member has acted arbitrarily or capriciously towards a student, it shall instruct the faculty member to meet with his or her department chair and, if appropriate, the dean of the school for the purpose of reassessing the student's performance. If the faculty member refuses to do so, the matter shall be referred to an ad hoc committee, to be established by the department, which shall have ultimate authority to act in the case.

Academic Renewal

Under certain circumstances, the university may disregard up to two semesters or three quarters of previous undergraduate course work taken at any college or university from all considerations associated with requirements for the baccalaureate. These circumstances are:

1. that the student has requested the action formally and has presented evidence that work completed in the terms under consideration is substandard and not representative of present scholastic ability and level of performance; and
2. that the level of performance represented by the terms under consideration was due to extenuating circumstances; and
3. that there is every evidence that the student would find it necessary to complete additional terms to qualify for the baccalaureate if the request were not approved.

Final determination that one or more terms shall be disregarded in the determination of eligibility for graduation shall be based upon a careful review of evidence by the Review Committee for Academic Renewal and shall be made only when:

1. five years have elapsed since the most recent work to be disregarded was completed; and
2. the student has completed at Fullerton, since the most recent work to be disregarded was completed, 15 semester units with at least a 3.0 grade-point average, or 30 semester units with at least a 2.5 GPA, or 45 semester units with at least a 2.0 GPA. Work completed at another institution cannot be used to satisfy this requirement.

When such action is taken, the student's permanent academic record shall be annotated so that it is readily evident to all users of the record that no work taken during the disregarded terms, even if satisfactory, may apply toward baccalaureate requirements. All work must remain legible on the record ensuring a true and complete academic history.

This policy is not intended to merely allow students a means by which they may improve their overall grade-point averages.

Transcripts

Official transcripts of courses taken at the university are issued only with the written permission of the student concerned. Partial transcripts are not issued. A fee of \$4 for each transcript must be received before the transcript can be released.

Normally, transcripts are available within three working days, except at the end of the semester when the student should allow about 10 days after the last day of the semester.

Transcripts from other institutions, which have been presented for admission or evaluation, become a part of the student's permanent academic file and are not returned or copied for distribution. Students desiring transcripts covering work attempted elsewhere should request them from the institutions concerned.

Continuous Residency Regulations

Good Standing

Good standing indicates that a student is eligible to continue and is free from financial obligation to the university. A student under academic disqualification, disciplinary suspension or disciplinary expulsion is not eligible to receive a statement of good standing on transcripts issued by the university or on other documents.

Choice of Requirements

A student remaining in continuous attendance in regular sessions and continuing in the same curriculum at any campus of the California community colleges or in any combination of California community colleges and campuses of The California State University may, for purposes of meeting graduation requirements, elect to meet the graduation requirements of such campuses from which he or she will graduate in effect either at the time of entering the curriculum or at the time of graduation therefrom, except that substitutions for discontinued courses may be authorized or required by the proper university authorities.

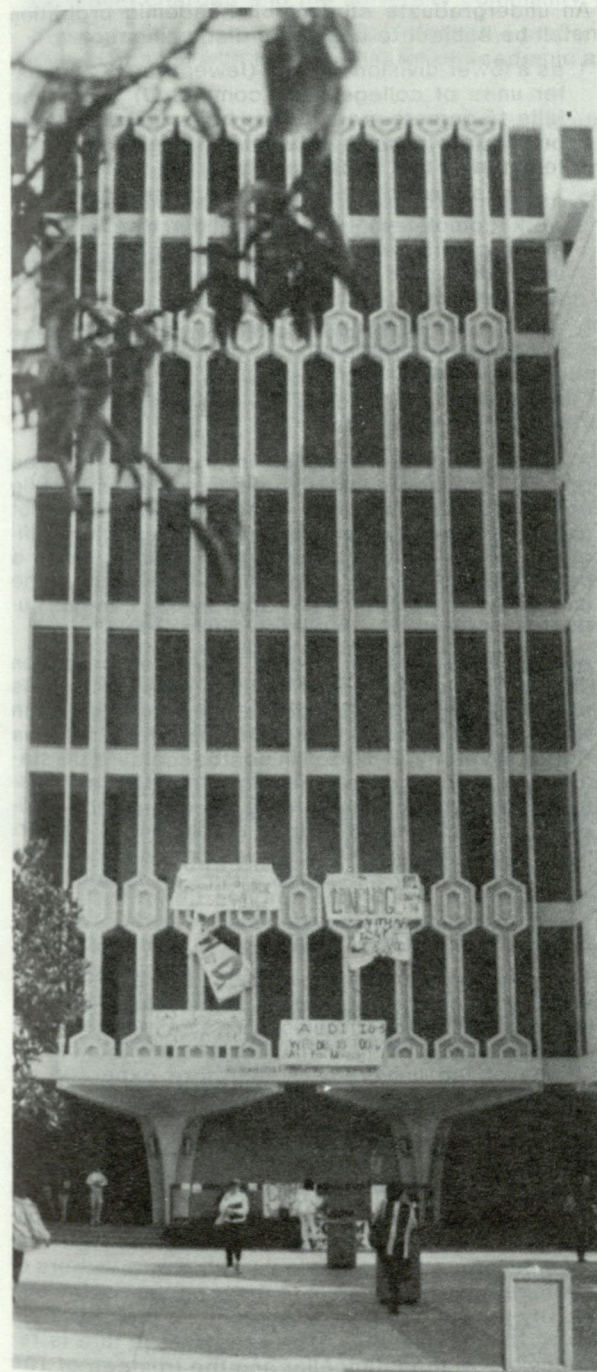
Stop-Out Policy

With certain exceptions, undergraduate students and postbaccalaureate unclassified students may be absent for one semester and maintain their continuing student status. This includes election of curriculum requirements for graduation and eligibility to register for the next semester. The exceptions are as follows:

Disqualified Students—Students who are disqualified at the end of a semester and have not been reinstated will not receive registration materials; they must apply for readmission, and if admitted, may be subject to new curriculum requirements.

Foreign-Visa Students—Students with foreign visas are required to maintain continuous enrollment. The stop-out policy is not applicable.

Students absent for more than one semester, as well as those who attend another institution while absent for any period, must apply for readmission should they wish to return to Fullerton. In some cases, however, election of catalog requirements will not be jeopardized for certain students. Students should consult an evaluator in the Office of Admissions & Records.



Leave of Absence

An undergraduate student may petition for a leave of absence and, if approved, may upon return continue under the curriculum requirements that applied to the enrollment prior to the absence. A leave of absence may be granted for a maximum of one year. Illness is the only routinely approved reason for a leave of absence. Students should realize that an approved leave of absence does not reserve a place for them in the university; they must reapply. The leave of absence policy for conditionally classified and classified graduate students is defined in the "Graduate Regulations" section of this catalog.

Withdrawal from the University

A student who wishes to withdraw from the university during a semester must complete a Change of Program form and obtain the required approvals. See the section on refund of fees for possible refunds. No student may withdraw after the date shown on the university calendar as the last day of instruction. Complete withdrawal from the university is accomplished by following the procedures for dropping classes.

Retention, Probation and Disqualification

For purposes of determining a student's ability to remain in the university both quality of performance and progress towards the educational objective will be considered.

Academic Probation

An undergraduate student shall be placed on academic probation if in any semester the cumulative grade-point average or the grade-point average at Fullerton falls below 2.0 (grade of C on a four-point scale). The student shall be advised of probation status promptly and, except in unusual instances, before the start of the next consecutive enrollment period.

An undergraduate student shall be removed from academic probation and restored to clear standing upon achieving a cumulative grade-point average of 2.0 in all academic work attempted, in all such work attempted at Fullerton, and is making satisfactory progress towards his or her educational objective.

A postbaccalaureate student (credential, unclassified or undeclared status but not second baccalaureate degree students) shall be subject to academic probation if after completing 12 or more units his or her postbaccalaureate cumulative grade-point average for units attempted at California State University, Fullerton falls below a 2.50 average. The GPA will determine whether a student is subject to probation only after the student has completed 12 semester units.

A graduate student enrolled in a graduate degree program in either conditionally classified or classified standing shall be subject to academic probation if he or she fails to maintain a cumulative grade-point average of at least 3.0 (grade of B on a four-point scale) in all units attempted.

Academic Disqualification

An undergraduate student on academic probation shall be subject to academic disqualification if:

1. as a lower-division student (fewer than 60 semester units of college work completed) he or she falls 15 or more grade points below a 2.0 average on all college units attempted or in all units attempted at this institution; or
2. as a junior (60 to 89 1/2 semester units of college work completed) he or she falls nine or more grade points below a 2.0 average on all college units attempted or in all units attempted at this institution; or
3. as a senior (90 or more semester units of college work completed) he or she falls six or more grade points below a 2.0 average on all college units attempted or in all units attempted at this institution.

A graduate student enrolled in a graduate degree program shall be subject to disqualification if while on probation sufficient grade points are not achieved to remove probationary status. Disqualification may be either from further registration in a particular program or from further enrollment in the university, as determined by appropriate campus authority.

A postbaccalaureate student who is on probation shall be subject to disqualification if he or she fails to earn at least a 2.50 grade-point average each term after the completion of 12 units at California State University, Fullerton in postbaccalaureate status. Disqualification may be either from further registration as a postbaccalaureate, credential or certificate program student or from enrollment at California State University, Fullerton, as determined by the vice president for academic affairs or designee.

Student Conduct

The university properly assumes that all students are in attendance to secure a sound education and that they will conduct themselves as mature citizens of the campus community. Compliance with all regulations of the university is therefore expected. If, however, on any occasion a student or an organization is alleged to have compromised accepted university standards, appropriate judiciary procedures shall be initiated through the established university process. Every effort will be made to encourage and support the development of self-discipline and control by students and student organizations. The vice president for student services, aided by members of the faculty, is responsible to the president of the university for the behavior of students in their relationships to the university. The president in turn is responsible to the chancellor and the trustees of The

California State University and Colleges, who themselves are governed by specific laws of the State of California.

Students have the right to appeal certain disciplinary actions taken by appropriate university authorities. Regulations governing original hearings and appeal rights and procedures have been carefully detailed to provide maximum protection to both the individual charged and the university community.

If the issue cannot be resolved informally, students should consult with the coordinator of academic appeals.

Inappropriate conduct by students or by applicants for admission is subject to discipline as provided in Sections 41301 through 41304 of Title 5, *California Administrative Code*. These sections follow.

Article 1.1, Title 5, California Administrative Code.

41301. Expulsion, Suspension and Probation of Students. Following procedures consonant with due process established pursuant to Section 41304, any student of a campus may be expelled, suspended, placed on probation or given a lesser sanction for one or more of the following causes which must be campus-related:

- (a) Cheating or plagiarism in connection with an academic program at a campus.
- (b) Forgery, alteration or misuse of campus documents, records, or identification of knowingly furnishing false information to a campus.
- (c) Misrepresentation of oneself or of an organization to be an agent of a campus.
- (d) Obstruction or disruption, on or off campus property, of the campus educational process, administrative process, or other campus function.
- (e) Physical abuse on or off campus property of the person or property of any member of the campus community or of members of his or her family or the threat of such physical abuse.
- (f) Theft of, or non-accidental damage to, campus property, or property in the possession of, or owned by, a member of the campus community.
- (g) Unauthorized entry into, unauthorized use of, or misuse of campus property.
- (h) On campus property, the sale or knowing possession of dangerous drugs, restricted dangerous drugs, or narcotics as those terms are used in California statutes, except when lawfully prescribed pursuant to medical or dental care, or when lawfully permitted for the purpose of research, instruction or analysis.
- (i) Knowing possession or use of explosives, dangerous chemicals or deadly weapons on campus property or at a campus function without prior authorization of the campus president.
- (j) Engaging in lewd, indecent, or obscene behavior on campus property or at a campus function.

(k) Abusive behavior directed toward, or hazing of, a member of the campus community.

(l) Violation of any order of a campus president, notice of which had been given prior to such violation and during the academic term in which the violation occurs, either by publication in the campus newspaper, or by posting on an official bulletin board designated for this purpose, and which order is not inconsistent with any of the other provisions of this Section.

(m) Soliciting or assisting another to do any act which would subject a student to expulsion, suspension or probation pursuant to this Section.

(n) For purposes of this Article, the following terms are defined:

(1) The term "member of the campus community" is defined as meaning California State University trustees, academic, non-academic and administrative personnel, students, and other persons while such other persons are on campus property or at a campus function.

(2) The term "campus property" includes:

(A) Real or personal property in the possession of, or under the control of, the Board of Trustees of The California State University, and

(B) All campus feeding, retail, or residence facilities whether operated by a campus or by a campus auxiliary organization.

(3) The term "deadly weapons" includes any instrument or weapon of the kind commonly known as a blackjack, sling shot, billy, sand-club, sandbag, metal knuckles, any dirk, dagger, switchblade knife, pistol, revolver, or any other firearm, any knife having a blade longer than five inches, any razor with an unguarded blade, and any metal pipe or bar used or intended to be used as a club.

(4) The term "behavior" includes conduct and expression.

(5) The term "hazing" means any method of initiation into a student organization or any pastime or amusement engaged in with regard to such an organization which causes, or is likely to cause, bodily danger, or physical or emotional harm, to any member of the campus community; but the term "hazing" does not include customary athletic events or other similar contests or competitions.

(o) This Section is not adopted pursuant to Education Code Section 89031.

(p) Notwithstanding any amendment or repeal pursuant to the resolution by which any provision of this Article is amended, all acts and omissions occurring prior to that effective date shall be subject to the provisions of this Article as in effect immediately prior to such effective date.

41302. Disposition of Fees: Campus Emergency; Interim Suspension. The President of the campus may place on probation, suspend, or expel a student for one or more of the causes enumerated in Section 41301. No fees or tuition paid by or for such student for the semester, quarter, or summer session in which he or she is suspended or expelled

shall be refunded. If the student is readmitted before the close of the semester, quarter, or summer session in which he or she is suspended, no additional tuition or fees shall be required of the student on account of the suspension.

During periods of campus emergency, as determined by the President of the individual campus, the President may, after consultation with the Chancellor, place into immediate effect any emergency regulations, procedures, and other measures deemed necessary or appropriate to meet the emergency, safeguard persons and property, and maintain educational activities.

The President may immediately impose an interim suspension in all cases in which there is reasonable cause to believe that such an immediate suspension is required in order to protect lives or property and to insure the maintenance of order. A student so placed on interim suspension shall be given prompt notice of charges and the opportunity for a hearing within 10 days of the imposition of interim suspension. During the period of interim suspension, the student shall not, without prior written permission of the President or designated representative, enter any campus of the California State University other than to attend the hearing. Violation of any condition of interim suspension shall be grounds for expulsion.

41303. Conduct by Applicants for Admission. Notwithstanding any provision in this Chapter 1 to the contrary, admission or readmission may be qualified or denied to any person who, while not enrolled as a student, commits acts which, were he enrolled as a student, would be the basis for disciplinary proceedings pursuant to Sections 41301 or 41302. Admission or readmission may be qualified or denied to any person who, while a student, commits acts which are subject to disciplinary action pursuant to Section 41301 or Section 41302. Qualified admission or denial of admission in such cases shall be determined under procedures adopted pursuant to Section 41304.

41304. Student Disciplinary Procedures for The California State University. The Chancellor shall prescribe, and may from time to time revise, a code of student disciplinary procedures for The California State University. Subject to other applicable law, this code shall provide for determinations of fact and sanctions to be applied for conduct which is a ground for discipline under Sections 41301 or 41302, and for qualified admission or denial of admission under Section 41303; the authority of the campus president in such matters; conduct-related determinations on financial aid eligibility and termination; alternative kinds of proceedings, including proceedings conducted by a hearing officer; time limitations; notice; conduct of hearings, including provisions governing evidence, a record, and review; and such other related matters as may be appropriate. The chancellor shall report to the board his actions taken under this section.

Debts Owed to the University

Should a student or former student fail to pay a debt owed to the university, the university may "withhold

permission to register, to use facilities for which a fee is authorized to be charged, to receive services, materials, food or merchandise or any combination of the above from any person owing a debt" until the debt is paid (see Title 5, *California Administrative Code*, Sections 42380 and 42381). For example, the institution may withhold such a service as furnishing copies of a student's transcript. If a student believes that he or she does not owe all or part of an unpaid obligation, the student should consult the business office. The business office, or another office to which the student may be referred, will review the pertinent information, including information the student may wish to present, and will advise the student of its conclusions with respect to the debt.

Student Rights

Right of Petition

Students may petition for review of certain university academic regulations when unusual circumstances exist. It should be noted, however, that academic regulations when they are contained in Title 5, *California Administrative Code*, are not subject to petition.

Petition forms are available in the Office of Admissions and Records and must first be reviewed and signed by appropriate officers before being reviewed by the university petitions committee. This committee will take action on the petition and the student will be notified of the decision. Results of the action will be placed in the student's folder in the Office of Admissions and Records.

The petitions committee members shall consist of the associate dean of each school, or designee, a professional staff member appointed by the director of admissions and records, and the assistant registrar, who will serve as the secretary.

Right of Noncompliance

Certain university activities either within or outside of the classroom may involve varying degrees of risk to the participants. It is university policy that the instructor directing such activities fully divulge to all potential participants the specific nature of such risks and obtain from them their expressed or implied consent prior to undertaking activities.

The student who at any time comes to believe that the risks, whether physical or psychological, are excessive has the responsibility to withdraw from participation at the time and to inquire of the instructor if there are alternative means of fulfilling the requirements without penalty. If there is none, the student may petition for withdrawal from the course without penalty or appeal for an appropriate modification of the activity. The appeal may be made either to the chair of the department concerned, or to the chair of the Committee on Activities Involving Human Subjects, or both.

Right of Academic Appeal

The right of due process, appeal and peer judgment is established by the Student Bill of Rights and Responsibilities for students who feel they have been treated capriciously or with prejudice by faculty or administrators. Students should make every effort to resolve the issue informally by consulting the individual concerned, and if necessary the department chair and dean of the school.

Students who still believe the problem has not been resolved should consult with the coordinator of academic appeals. Upon the student's request, the coordinator will convene the Academic Appeals Board to hear the student's complaint. Students must initiate the appeals process within one month after they could reasonably be expected to be aware of the action in question.

Copies of the governing documents are available in the Academic Appeals Office.

Privacy Rights of Students

The federal Family Educational Rights and Privacy Act of 1974 (20 U.S.C. 1232g) and regulations adopted thereunder (45 C.F.R. 99), set out requirements designed to protect the privacy of parents and students concerning education records maintained by the institution. Specifically, the statute and regulations govern access to records maintained by the university, and the release of such records. In brief, the law provides that the university must provide students access to official records directly related to them and an opportunity for a hearing to challenge such records on the grounds that they are inaccurate, misleading or otherwise inappropriate; the right to a hearing under the law does not include any right to challenge the appropriateness of a grade as determined by the instructor. The law generally requires that written consent of the student be received before releasing personally identifiable data about the student from records to other than a specified list of exceptions. The institution has adopted a set of policies and procedures concerning implementation of the Act and the regulations on the campus. Copies of these policies and procedures may be obtained from the Vice President for Student Services. Among the types of information included in the campus statement of policies and procedures is: (1) the types of student records and the information contained therein; (2) the official responsible for the maintenance of each type of record; (3) the location of access lists which indicate persons requesting or receiving information from the record; (4) policies for reviewing and expunging records; (5) the access rights of students; (6) the procedures for

challenging the content of student records; (7) the cost which will be charged for reproducing copies of records, and (8) the right of the student to file a complaint with the Department of Education. An office and review board have been established by the Department to investigate and adjudicate violations and complaints. The office designated for this purpose is: The Family Educational Rights and Privacy Act Office (FERPA), U.S. Department of Health, Education and Welfare, 330 C Street, Room 4511, Washington, D.C. 20202.

The campus is authorized under the act to release directory information concerning students. Directory information may include the student's name, address, telephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student. Directory information is subject to release by the university at any time unless it has received prior written objection from the student specifying information that the student requests not be released. Written objections should be sent to the Vice President for Student Services. Further details are published each semester in the class schedule.

The campus is authorized to provide access to student records to campus officials and employees who have legitimate educational interests in such access. These persons are those who have responsibilities in connection with the university's academic, administrative or service functions and who have reason for using student records connected with university or other related academic responsibilities.

Use of Social Security Number

Applicants are requested, but not required, to include their social security number in designated places on applications for admission pursuant to the authority contained in Title 5, *California Administrative Code*, Section 41201. The social security number is used on many campuses as a means of identifying records pertaining to the student as well as identifying the student for purposes of financial aid eligibility and disbursement and the repayment of financial aid and other debts payable to the institution. At Fullerton, student records are identified by a university-assigned student file number, not the social security number, though the latter is used in financial aids administration and in student payroll records.

Students and graduates which may be found in the preceding section of this catalog and the class schedule. Also, individual schools, divisions and departments may have established particular rules governing programs offered.

Since all policies and procedures are subject to change, by appropriate authority, students should consult class schedules and other official announcements for possible revision of policies and procedures stated herein.

Graduate Regulations



The regulations contained herein are in addition to other policies and procedures applying to both undergraduates and graduates which may be found in the preceding section of this catalog and the class schedule. Also, individual schools, divisions and departments may have established particular rules governing programs offered.

Since all policies and procedures are subject to change, by appropriate authority, students should consult class schedules and other official announcements for possible revision of policies and procedures stated herein.

Graduate Applications

All applicants for any type of postbaccalaureate or graduate standing (e.g., master's degree applicants, those seeking credentials, and those interested in taking courses for personal or professional growth) must file a complete application within the appropriate filing period. *Second baccalaureate degree candidates should apply as postbaccalaureate students with an undergraduate degree objective.* A complete application for postbaccalaureate or graduate standing includes all of the forms and fees described in the application booklet, including the supplementary graduate admissions application. Applicants who completed undergraduate degree requirements and graduated the preceding term are also required to complete and submit an application and the nonrefundable application fee. In the event that an applicant wishes to be assured of initial consideration by more than one campus, it is necessary to submit a separate application (including fee) to each.

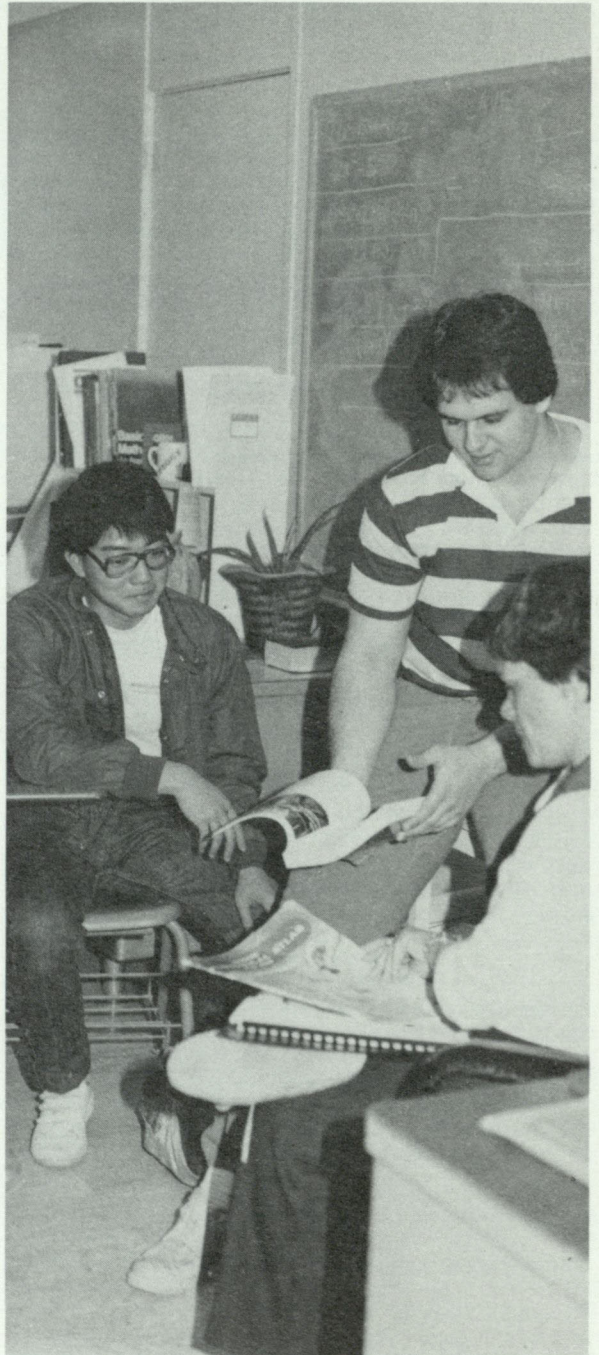
Applications may be obtained from the Office of Admissions and Records or the Graduate Studies Office of any California State University campus. Instructions for completing the application forms are included in the material supplied. Since some programs require the completion of an additional form as part of the application process, students should inquire concerning this possibility at the office of the academic unit offering the particular program.

Transcripts

When an applicant for graduate standing, with a master's degree objective, a credential-only objective, or a master's degree and credential objective, receives the application acknowledgement, requests should be submitted to *all* of the institutions of higher learning in which previously registered, requesting that two *official* transcripts from each institution be sent to the university Admissions and Records office.

One copy of each transcript will be forwarded to the academic unit offering the degree or credential program specified by the student as the objective; and the other official transcript will be retained for use by both the Admissions and Records Office and the Graduate Studies Office.

Students who receive their baccalaureate degree at Cal State Fullerton and continuing graduate students who change their declared objective subsequent to admission must obtain whatever additional transcripts are needed to provide two complete sets of transcripts, but do not need to request Cal State Fullerton transcripts.



Postbaccalaureate applicants with *no* degree or credential objective must submit a transcript from the college or university where the baccalaureate was earned. Further, one transcript from other institutions attended is required as necessary so that Cal State Fullerton has a complete record of the last 60 semester units attempted prior to enrollment at Fullerton.

All transcripts must be received directly from the issuing institutions and become official records of the university; such transcripts therefore cannot be returned or reissued. Transcripts which include course work from other than the issuing institution are not sufficient evidence of course work taken elsewhere. Foreign language transcripts must be accompanied by certified English translations.

Tests

The Graduate Record Examination (GRE), or another test, may be required for conditionally classified admission, or subsequently for the granting of classified standing. Test requirements vary from department to department. Students should refer to master's degree requirements outlined by each department in the "Curricula" section of this catalog. Applications and information on test dates for nationally administered tests (e.g. GRE, GMAT) are available in the testing center or Graduate Studies Office.

TOEFL Requirement

All graduate and postbaccalaureate applicants, regardless of citizenship, whose preparatory education was principally in a language other than English must demonstrate competence in English. Those who do not possess a bachelor's degree from a postsecondary institution where English is the principal language of instruction must receive a minimum

score of 550 on the Test of English as a Foreign Language (TOEFL).

International Students

See procedures outlined in the international student portion of the "Admissions Policies" section of this catalog.

Second Master's Degree or Concentration

Students may wish to pursue a second master's degree or concentration. Approval for admission to graduate standing in the second degree program or concentration may be given only after the first degree has been awarded. Units used for the first degree or concentration may not be applied to the second. Students who have completed a master's degree at Cal State Fullerton in one concentration and wish to complete another will not be awarded a second degree.

Nonaccredited Schools

An applicant who is a graduate of a nonaccredited school must apply for admission as an undergraduate to complete requirements for a bachelor's degree from this institution. However, once admitted, a student in this category who gives evidence of unusual promise and superior background may petition for graduate standing as conditionally classified. If the petition is granted, the student may then proceed in the graduate program. If the petition is denied, the student may be requested to complete a specified number of undergraduate units in order to establish equivalency to the bachelor's degree or to complete requirements for a bachelor's degree at CSUF. For further information, contact the Graduate Studies Office.

Graduate Admissions

Following completion of application procedures and subsequent review of the student's eligibility by the Admissions Office and appropriate academic unit, the student will be notified by the Admissions Office concerning admission. Only a written notice from the Admissions Office is valid proof of admission. Academic advisement prior to admission is tentative and cannot be construed as granting official admission to a program or establishing requirements for the degree.

Students may apply for a degree objective, a credential or certificate objective, or no program objective. Four admission categories are defined in terms of these academic objectives.

Postbaccalaureate Standing: Unclassified

To qualify for admission with no degree objective, students must (1) hold an acceptable bachelor's degree from a regionally accredited institution or have equivalent preparation as determined by the appropriate campus authority; (2) have a grade point average of at least 2.5 (A = 4.0) in the last 60 semester (90 quarter) units; and (3) have been in good standing at the last college attended. In unusual circumstances, exceptions may be made to these criteria.

Admission with postbaccalaureate-unclassified standing does not constitute admission to graduate degree or credential programs. If a student wishes to change academic objective after admission, an application for change of objective must be filed in the Admissions Office.

Postbaccalaureate Standing: Classified

To qualify for admission with a credential or certificate objective, students must (1) meet the requirements for postbaccalaureate-unclassified standing and (2) satisfy any additional professional, personal, scholastic, and other standards, including qualifying examinations. Refer to specific credential requirements under the departmental section of this catalog.

Graduate Standing: Conditionally Classified

To qualify for admission with a graduate degree objective, students must (1) meet the admission requirements for postbaccalaureate-unclassified standing and (2) meet any additional requirements of the particular program including a favorable recommendation from the academic unit.

An applicant who has deficiencies in prerequisite preparation or in grade-point average may be considered for admission in conditionally classified standing with the approval and recommendation of the appropriate campus authority. A student admitted in conditionally classified standing may subsequently be granted classified standing in an authorized graduate degree curriculum if professional, personal, scholastic, or other standards including qualifying examinations are met.

Graduate Standing: Classified

Determination of the student's prerequisites and assignment of courses, units, and grade points required to remove deficiencies is made by the academic unit. For specific information on prerequisites to classified standing, consult departmental program requirements.

Classified standing is normally granted when all prerequisites have been satisfactorily completed, the official study plan formulated, and the recommendation made by the appropriate graduate adviser and committee to the Dean of Graduate Studies who gives final approval. An eligible student may be granted classified standing prior to the first registration or during the first semester of registration.

No more than nine units of postgraduate work taken at this institution prior to classified standing will be applied to a master's degree study plan. Any acceptable transfer work is excluded from the nine units permitted.

It is the student's responsibility to initiate the request for classified standing in the appropriate academic unit by making an appointment with the graduate adviser. The student will be sent a copy of the approved study plan by the Graduate Studies Office. Copies will be filed in the academic unit, university records, and the Graduate Studies Office. *A student is not officially classified until an approved study plan is on file in the Graduate Studies Office.*

Requirements for the Master's Degree

To be granted the master's degree, a student must have been classified, advanced to candidacy, and completed a satisfactory pattern of study in an approved field. Requirements which apply to all programs follow. *For specific requirements of particular programs, see the program descriptions in the departmental section of this catalog.*

Each student's program for a master's degree (including eligibility, classified standing, candidacy, and award of the degree) must be approved by the graduate program adviser, the graduate committee, and the Dean of Graduate Studies.

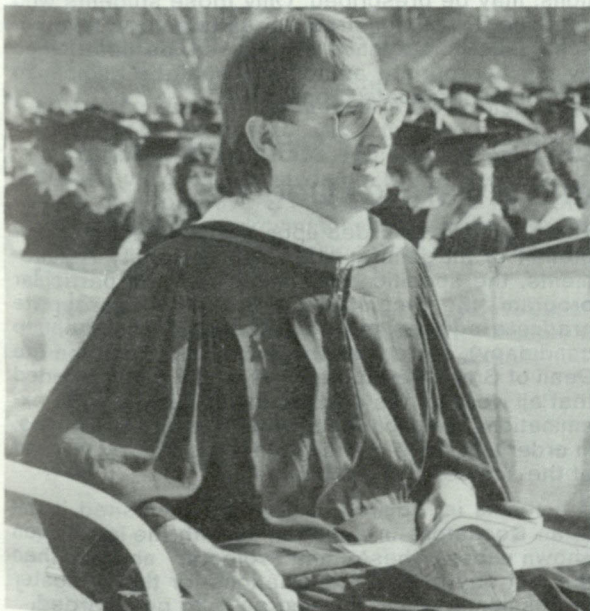
University Writing Requirement

Students working toward a master's degree are required to demonstrate writing ability commensurate with the baccalaureate degree. This requirement should be met within the first nine units of graduate work by successfully completing one of the following:

1. An upper-division writing requirement at any CSU campus.
2. An upper-division course at another university equivalent to a course which meets the Cal State Fullerton requirement. Such equivalence must be certified by the department or program responsible for the student's academic work.
3. Cal State Fullerton Examination in Writing Proficiency.
4. An upper-division or graduate-level course that is certified as meeting the writing requirement and is approved by the department or program responsible for the student's academic work. The grade received must be a C or better.

Any student who has not met the requirement within the first nine units of graduate work shall be required to enroll in a certified course at the earliest opportunity.

Departments and programs may, at their discretion and with approval of the Graduate Education Committee, establish additional writing requirements for their graduate students. For further information, students should consult their program adviser or the Graduate Studies Office.



Study Plan

General requirements for the master's degree study plan include:

1. A minimum of 30 approved semester units, or more, as determined by the particular program.
2. A minimum of 21 semester units in residence (transfer and Cal State Fullerton extension or intersession course work are not considered to be in residence).
3. A unit of course work taken at a college or university on the quarter system will be considered as equivalent to two-thirds of a unit when such course work is considered acceptable as transfer work. See additional requirements for transfer credit under "Graduate Enrollment Policies."
4. Upper-division and graduate-level courses only (note limitation on 300-level courses in course numbering code description).
5. Not less than one-half of the total units in graduate (500-level) courses.
6. Not more than six semester units for a thesis, if a thesis is required.
7. A maximum of six units of independent study (exceptions subject to approval by the appropriate school dean).
8. No courses taken to satisfy prerequisite requirements included in the minimum of 30 units.
9. None of the following: correspondence courses, credit by examination, or similar.
10. No courses with nontraditional grades (e.g., CR, S, P).
11. A minimum grade-point average of 3.0 (B) in all courses attempted to satisfy requirements for the degree.
12. All courses completed within five years of the date of award of the degree or satisfactorily validated.
13. All courses taken after the baccalaureate (or postbaccalaureate credit granted) and not credited toward another degree.
14. A final evaluation, which may be a thesis, a project, a comprehensive examination, or any combination of these.

The approved study plan is valid as long as the student maintains continuous enrollment in regular semesters at the university; otherwise it is necessary to reapply and meet any changed or additional requirements approved in the interim.

Election of Curriculum

A student remaining in continuous attendance in regular semesters and continuing in the same curriculum may elect to meet the degree requirements in effect either at the time of entering the curriculum or at the time of completion of degree requirements, except that substitution for discontinued courses may be approved by the graduate program adviser.

Advisers and Committees

University policy provides that each student's program for the master's degree shall be under the guidance of an adviser and committee. In some ar-

reas a graduate program adviser has been designated to give overall supervision for the graduate program. In others, the graduate program adviser also serves as the individual student's adviser. The student's adviser is usually a member of the committee. The committee is responsible for all major recommendations to the Dean of Graduate Studies regarding the student's achievement of classified standing, advancement to candidacy, and completion of the master's degree.

It is the responsibility of the student to arrange appointments for advisement and other information in the office of the academic unit offering the degree program. As a minimum, the student should obtain advisement (1) either prior to or during the first semester of attendance, (2) when requesting classified standing, and (3) when applying for a graduation check prior to the final semester.

It is advisable for the student to maintain a personal file of transcripts and other evidences of grades and achievements, and to carry these whenever seeking advisement.

Advancement to Candidacy

A student who has been granted classified standing is normally advanced to candidacy after a request is filed for graduation by the student and an affirmative recommendation made by the graduate program adviser. A minimum grade-point average of 3.0 (B) for all study plan course work is required; other scholastic, professional and personal standards, the passing of examinations, and other qualifications, may be prescribed. Only those students who continue to demonstrate a satisfactory level of scholastic competence and fitness, as determined by the appropriate authorities, shall be eligible to continue in graduate programs.

Completion of Requirements and Award of Degree

The degree is awarded upon the satisfactory completion of all general state and university requirements, the specific requirements for the particular program, the recommendation of the appropriate graduate adviser and committee (advancement to candidacy), and the approval of the faculty and the Dean of Graduate Studies. It is highly recommended that all work for the degree, except final course examinations, be submitted by the last day of classes, in order to assure granting of the degree by the end of the semester or session.

If a thesis is required, it must be deposited in the Titan Bookstore in accordance with the instruction shown under "Theses and Projects," no later than the last day of final examinations for the semester or session in which the degree is to be awarded.

It is the student's responsibility to file an application for a graduation check and pay the graduation and diploma fee *prior* to the beginning of the final semester. Forms are available at the Admissions and Records information counter, the Graduate Studies Office, and the Records Office graduation unit.

The application for graduation initiates review of degree requirements and formal approval by the faculty as well as serving as a diploma order. The last date to file the application is listed in the academic calendar of the class schedule for each regular semester. Candidates for August graduation must file their requests prior to registration for the spring semester.

Students who fail to complete requirements as planned must update the application for a graduation check and do so by the appropriate deadline. An additional fee may be required.

Since Cal State Fullerton is on the semester basis, master's degree programs are ordinarily completed in January and June. A student who wishes to complete requirements during the summer must obtain written approval prior to summer term on a form available in the Graduate Studies Office. The approved form must be returned to Graduate Studies during the spring semester.

The effective date of graduation will be the last day of the specific term in which requirements are completed.

Commencement ceremonies are held only at the end of the spring semester. Students completing requirements at the end of the fall and spring semesters and during the following summer may participate in those ceremonies. Information concerning commencement activities is sent to students by the Registrar during the final semester. Arrangements for cap, gown and hood rental are made in the Titan Bookstore.

Time Limit for Completion

All requirements for the master's degree, including all course work on the student's study plan, should normally be completed within five years. This time limit commences with the semester of the earliest course used on the student's study plan and consists of a total of ten (10) consecutive semesters. When individual circumstances warrant, this time limit may be extended for up to two years (four additional consecutive semesters).

Extension of the five year time limit may be requested by filing a petition with the Graduate Studies Office. The petition must contain a full explanation of

the circumstances which prevented completion of the degree requirements within the normal five-year limit and must be approved (signed) by the graduate program adviser, the chair of the appropriate graduate committee and the Dean of Graduate Studies. Approvals for extension must be obtained prior to the expiration of the five-year limit.

Outdated course work (course work older than the student's approved time limit; i.e., normally five years but with approval may be a maximum of seven years) must be repeated. A maximum of nine (9) units of course work may be exempt from this policy if it can be validated. Copies of the "Petition for Validating Outdated Coursework" may be obtained from the Graduate Studies Office. Validation is allowed at the discretion of the graduate program adviser, the academic unit offering the subject course and the Dean of Graduate Studies. Validation must be accomplished by passing a written comprehensive test of the materials covered by the course being validated or by some equivalent method with prior approval of both the graduate program adviser and the Dean of Graduate Studies. Any outdated course work which cannot be validated either because of a denial of the petition or because it is in excess of the nine units allowed for validation, must be repeated or updated through the use of additional study plan course work. If course work is repeated or additional course work is required to update, the units and grades will be added to the study plan.

Changes in Study Plan

If a classified graduate student wishes to make a change in the approved study plan, a request should be made to the appropriate graduate program adviser. Requests must be made prior to registration for any course work to be substituted or added. No course may be removed from the study plan after a student has taken it. Forms which may be used to file a request are available in the Graduate Studies Office.

Changes in study plan may also be warranted by outdated coursework or grade-point average (see "Time Limit for Completion" and "Grade-point Average Standards").

Graduate Enrollment Policies

Consult previous sections of this catalog and the class schedule for other information and regulations relating to registration and enrollment.

Residence Requirement

A student is considered to be in residence when registered during regular semesters at this university. Of the minimum of 30 semester units of approved course work required for the master's degree, not less than 21 shall be completed in residence at this institution. Approved units earned in summer sessions may be substituted for regular semester unit requirements on a unit for unit basis. Extension or intercession course work may not be used to fulfill the minimum residence requirement.

Continuous Enrollment

A graduate student with a graduate degree objective should maintain continuous enrollment during regular semesters (summer sessions and extension excluded) until award of the degree. This policy is designed to eliminate the need for readmission to the university, provide opportunity for continuous use of facilities, including the Library, and assure the development of an integrated program, adequately supervised, and effectively terminated within the time limitations allowed by regulations.

Unless granted an approved leave of absence, a graduate student who fails to register each semester has discontinued enrollment in the graduate degree program. If the student wishes to resume studies, it will be necessary to reapply for admission to the university and to the degree program and meet any changed or additional requirements approved in the interim.

Students who may have completed all course work, but who may not have satisfactorily completed a comprehensive examination or other requirement, are expected to maintain continuous enrollment until award of the degree.

A graduate student who finds it impossible to attend during a certain semester and is not eligible for a leave of absence, must register in Graduate Studies 700. Registration in this course is restricted to conditionally classified or classified graduate students. It carries no unit credit and does not require class attendance. Registration in this course in each semester when no other course work is taken will be necessary until award of the degree.

Similarly, Credential Studies 701 is available for students with a credential-only objective who find it impossible to enroll in course work and are not eligible for a leave of absence.

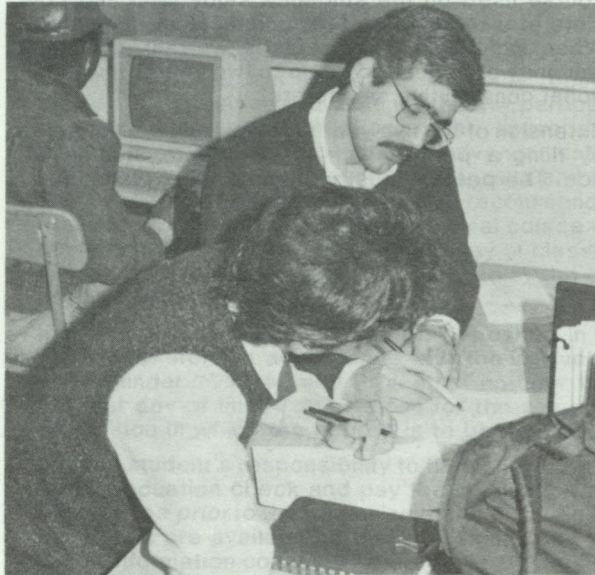
Advancement to Candidacy

Commencement ceremonies are held only at the end of the spring semester. Students wishing to graduate at the end of the fall and spring semesters must advance to candidacy by the end of the fall semester. The following minimum requirements must be met by the student:

- 1. Completion of the first semester of the program.
- 2. Completion of the first semester of the program.
- 3. Completion of the first semester of the program.

Time Limit for Completion

All requirements for the master's degree, including all course work on the student's study plan, should normally be completed within five years. This time limit is waived for the student who is classified or conditionally classified.



Leave of Absence

A leave of absence permits a student to continue under the curriculum requirements which applied prior to the absence and may be granted for a maximum of one year. Conditionally classified and classified students in good standing who have completed at least six units of residence course work toward the degree may qualify for a leave of absence. A "Request for Leave of Absence" form is available at the Admissions and Records information counter or in the Graduate Studies Office.

Any one of the following circumstances may be grounds for requesting a leave of absence:

1. Illness or disability (permanent or temporary) or similar personal exigencies including pregnancy which make it impossible or inadvisable for a student to register for classes.
2. Activities which enhance a student's professional career objectives.
3. Active duty in the armed forces of the United States.
4. Other reasons at the discretion of the Dean of Graduate Studies.

After review by the Graduate Studies Office, the academic unit (where applicable), and the Registrar's Office, a response is mailed to the student.

A first-time leave of absence of one semester only will normally be granted upon request for students who qualify and will not require an application for re-admission to the university. Registration materials for the semester following the leave will be sent to the student.

Students requesting a subsequent leave or a leave longer than one semester are required to provide appropriate documentation (e.g., doctor's recommendation, verification of employment). Such requests must also be endorsed by the program adviser. A leave granted for more than one semester does *not* reserve a place for the student at this university. An application for admission must be filed in order to be readmitted and permitted to enroll when the leave terminates.

Study Load

Graduate students must carry a study load of 12 units of course work a semester or nine units of which six are in 500-level courses for full-time enrollment certification by the university. A normal full-time load in summer session is one and one-third units per week of instruction. The maximum study load for students working toward a master's degree is 12 units per semester; in exceptional cases, however, a student may take more with the approval of the graduate program adviser.

Enrollment in Extended Education Programs

In addition to its regular academic programs, the university offers a number of courses through its ex-

tended education program. These include the summer session, the extension program and adjunct enrollment (a program permitting those who are not formally enrolled to take regular university courses).

The applicability of credit earned through courses taken in any of the programs sponsored by the Office of Extended Education is subject to approval by the graduate program adviser and Dean of Graduate Studies.

Summer Sessions: Appropriate courses taken during the summer session may be applied to a graduate degree program, providing the courses are approved *in advance*.

Extension: No more than nine units of credit earned in the university extension program (including inter-session course work) may be applied to a graduate degree. Consultation with a graduate adviser *before* taking an extension course is strongly recommended.

It should be noted that enrollment in summer session or extension courses does not constitute admission to the university or enrollment as a continuing student in the university. Any student desiring a master's degree must be admitted to a regular semester (fall or spring).

Enrollment in 500-Level Courses by Seniors

Undergraduate students may enroll in graduate level courses (500 level) if they:

- a. have reached senior status (i.e., completed a minimum of 90 semester units)
- b. have the academic preparation and prerequisites required for entry into the course
- c. gain the consent of the instructor.

Students wishing to use 500-level course work taken during their undergraduate degree toward a master's degree should read the following section on Postgraduate Credit.

Postgraduate Credit

A graduate student may petition for a maximum of nine units of postgraduate credit for course work (either 400 or 500 level) taken during the undergraduate degree if:

- a. the course work was not used to meet any of the university's requirements for the baccalaureate degree (including major, minor or concentration)
- b. the course work was taken during the final two semesters prior to the student's graduation
- c. approved by the registrar of the appropriate university.

Petition forms are available at the Admissions and Records information counter. If approved, appropriate notations will be entered on the student's permanent record.

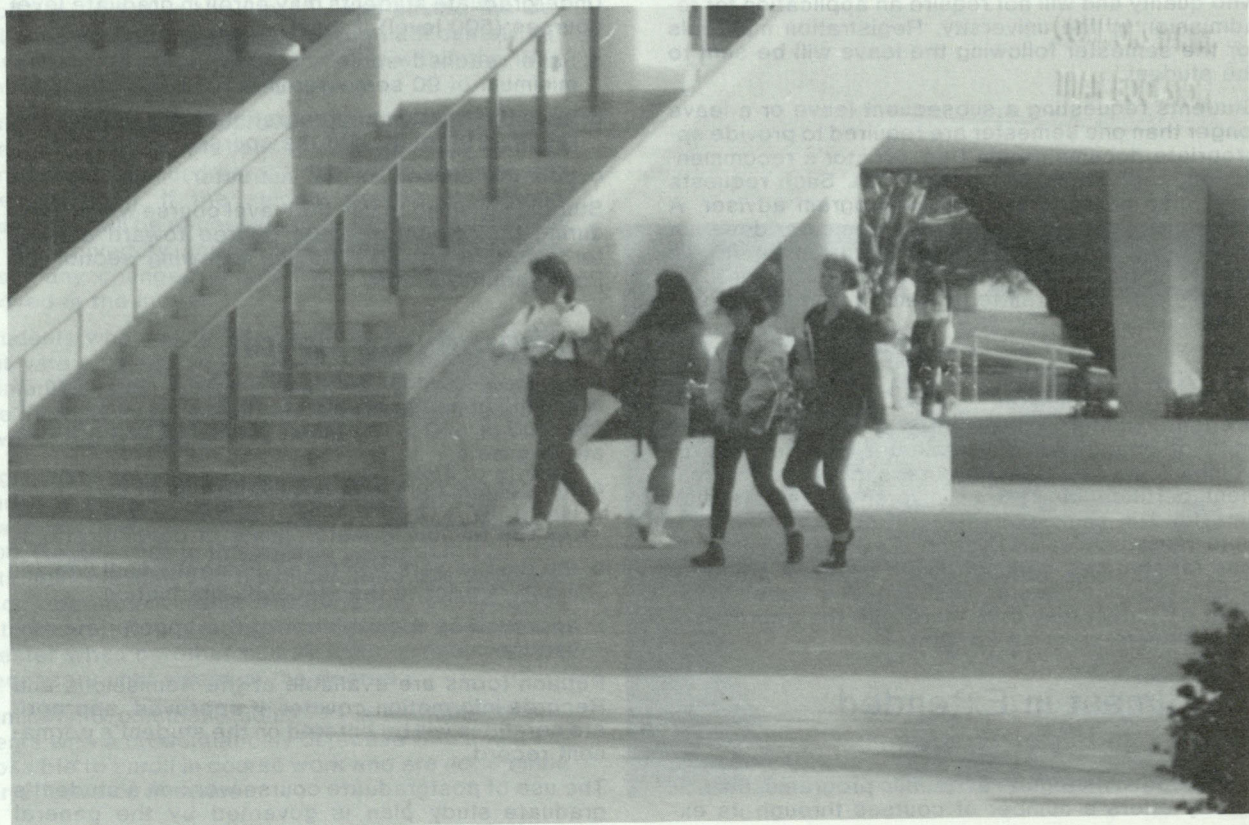
The use of postgraduate course work on a student's graduate study plan is governed by the general

regulations for all graduate degrees and must be approved by the program adviser, the appropriate graduate committee and the Dean of Graduate Studies.

Transfer Credit Policy

Graduate students may be able to use a limited amount of transfer course work in meeting the requirements for a master's degree. The use of transfer course work on a student's study plan is subject to the following provisions:

1. The course work being transferred must:
 - a. have been taken at an accredited college or university.
 - b. be acceptable for credit toward a graduate degree at the institution where the course work was taken.
 - c. have been completed with a grade of B or better.
 - d. not have been used in meeting the requirements for another earned degree (either graduate or undergraduate).
 - e. have been completed within the student's five-year time period which is required for completion of the requirements for the master's degree at CSUF.
2. An absolute minimum of 21 semester units toward any master's degree at CSUF must be in residence units. For master's degrees requiring more than 42 semester units, a minimum of half of the units used on the student's study plan must be in residence units. Residence units include regular courses and extension courses offered as special sessions. Other extension course work or adjunct enrollment course work is treated like transfer work.
3. Use of transfer work on a student's study plan is subject to all other policies concerning study plan course work; e.g., fifty percent must be graduate level work, no correspondence course work, no credit by examination, no courses with nontraditional grades.
4. In all cases, the use of transfer course work on a student's study plan is subject to the acceptance and approval of the academic unit's graduate adviser and the Dean of Graduate Studies. Course work taken at another institution after admission to CSUF as a graduate student is rarely accepted for credit toward a master's degree and can only be accepted if the student has received prior approval of both the graduate adviser and the Dean of Graduate Studies.
5. Total approved transfer units and grade points will be entered on the CSUF transcript at graduation.



Graduate Academic Standards

Graduate study deals with more complex ideas and demands more sophisticated techniques, searching analysis, and creative thinking than undergraduate study. The research required is extensive in both primary and secondary sources and the quality of writing expected is high. The student is advised to consider these factors when deciding upon the amount of course work to be undertaken during any one semester.

Grade-Point Average Standards

Prerequisites: The grade-point average required for prerequisites prior to classified standing varies according to the particular program. See requirements in departmental sections of this catalog.

Study Plan: Grade-point averages are calculated by dividing grade points earned by units attempted. The 30 or more semester units of approved study plan course work, including transfer work, required for the degree must be completed with a 3.0 (B) minimum grade-point average. If a student approaches the completion of the degree requirements with less than a 3.0 average, a request may be made for a change in the study plan to add no more than six units of course work in order to achieve at least a 3.0. Requests for course work to be added to the study plan must be approved by the graduate program adviser and Dean of Graduate Studies prior to registration (see "Changes in Study Plan"). If the grade-point average at any time falls below such a level that it cannot be raised to a 3.0 within the prescribed limits of course work, this has the effect of withdrawing the student from the master's degree program.

If permission is given to repeat a course, and the course is successfully repeated, both grades are considered in computing grade-point averages. However, successful repetition of a course originally passed carries no additional unit credit toward a degree.

University: A graduate degree student is expected to earn a 3.0 average in all postbaccalaureate course work taken at this university. Exception to this rule may be granted only if courses for which grades are not to be computed in the GPA have never been part of the student's study plan for the degree, and if it is evident that they are inapplicable and inappropriate to the degree program.

Academic Probation and Disqualification

A graduate student enrolled in a graduate degree program in either conditionally classified or classified graduate standing is subject to academic probation if a cumulative grade-point average of at least 3.0 (grade of B on a four-point scale) is not maintained.

If sufficient grade points to remove probationary status are not earned while on probation, the student is subject to disqualification. Disqualification will prevent further registration in a particular program or further enrollment in the university, as determined by appropriate campus authority.

A graduate student may also be placed on probation or may be disqualified for unsatisfactory scholastic progress regardless of cumulative grade-point average. Such actions may be due to repeated withdrawal, failure to progress toward an educational objective, and non-compliance with an academic requirement.

A postbaccalaureate student (credential, unclassified, or undeclared status) shall be subject to academic probation if after completing 12 or more units, the cumulative grade-point average falls below a 2.5 average. A postbaccalaureate student on probation shall be subject to disqualification if at least a 2.50 grade-point average is not earned each term after the completion of 12 units in postbaccalaureate status. Disqualification may be either from further registration toward a postbaccalaureate credential or certificate program, or from further enrollment in the university as determined by the appropriate campus authority.

Declassification

Graduate students in classified graduate standing shall be declassified upon the recommendation of the appropriate academic unit, with a change to postbaccalaureate standing, unclassified, when one or more of the following conditions exist:

1. The student's request for declassification has been recommended for approval by the graduate committee.
2. The student fails to maintain the grade-point average required in the master's degree program.
3. The student has failed to demonstrate a satisfactory level of scholastic competence and fitness.
4. The student fails to complete the degree within the prescribed time limit.

A recommendation for declassification is sent to the Graduate Studies Office by the graduate program adviser for the particular degree.

Theses and Projects

Definition

A thesis is defined as the written product of a systematic study of a significant problem. It identifies the problem, states the major assumptions, explains the significance of the undertaking, sets forth the sources for and methods of gathering information, analyzes the data, and offers a conclusion or recommendation. The finished product evidences originality, critical and independent thinking, appropriate organization and format, and thorough documentation. Normally, an oral defense of the thesis is required.

A project is a significant undertaking appropriate to the fine and applied arts or to professional fields. It also evidences originality and independent thinking, appropriate form and organization, and a rationale. It is described and summarized in a written abstract that includes the project's significance, objectives, methodology and a conclusion or recommendation. An oral defense of the project may be required.

Annual Thesis Award

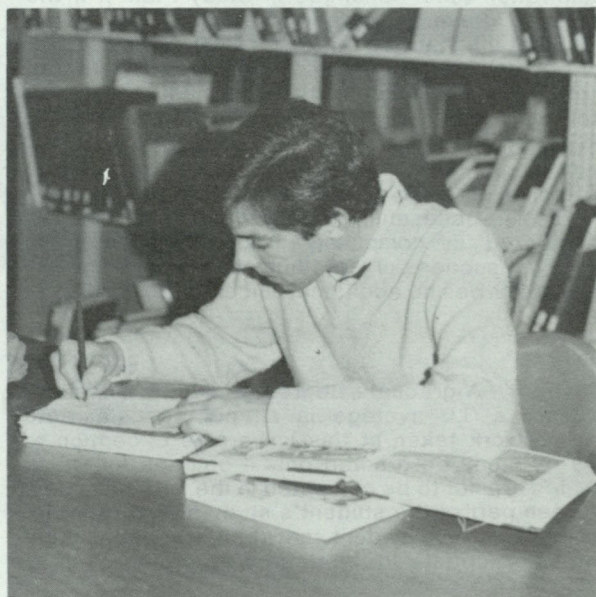
An award of \$300 along with an engraved plaque will be given each year to the student whose thesis represents the highest standard of scholarly accomplishment as determined by a panel of judges chosen from emeriti professors. Interested students should contact the Graduate Studies Office or their program adviser for further information on eligibility and deadlines. Finalists from each school may also be recommended for Honorable Mention by the judges; these will receive a certificate of Honorable Mention and a cash award.

General Regulations

Of the minimum of 30 semester units of approved course work required for the master's degree, no more than six are allowed for a thesis.

When a thesis is required, the Library is to be provided with the approved original copy, or a fully acceptable duplicated copy, in the approved binding, and an acceptable microfilm of it. An abstract accompanies the thesis and will normally be published in the University Microfilms International journal, *Masters Abstracts*. Copies are thereby made available for order by interested scholars.

When a project is required, it will be filed with the academic unit offering the degree program. Some record of the project, or the project itself, is preserved in the academic unit and, when appropriate, in the Library. When the appropriate authority recommends, a project or its written record may be treated as a thesis.



Although a minimum of three faculty members supervise and approve the thesis, it is possible for a qualified person who is not a regular university faculty member to serve as a visiting examiner and join in the approval of the written record. This person serves as the fourth member of the committee.

Title to theses (and projects when treated as theses, as above) passes to the university upon their acceptance by the evaluating faculty.

Variations from procedures and regulations should be referred to the Office of Graduate Studies for approval.

Format Guidelines and Style Manuals

All-university format guidelines are included in a thesis manual which has been developed to assist the student in preparation of a thesis or a project which is to be treated as a thesis. Copies are available in the Office of Graduate Studies. *It is the student's responsibility to make certain that the requirements are met. The student is strongly advised to become familiar with the instructions in the manual.* Theses from the library or departmental offices should not be used as examples of correct format.

The academic unit, through the student's adviser and/or committee, is responsible for the academic content and English usage in the thesis and for the student's correct use of forms of documentation and bibliography. In addition to the university format guidelines, each academic unit may select a supplementary style manual to be followed in matters of documentation and bibliography. Students should consult their academic program adviser or thesis committee chair concerning the style manual used.

If the supplementary style manual presents regulations which conflict with the all-university format guidelines published in the thesis manual, the university regulations take precedence.

Some graduate programs require style manuals or guides designed for journal articles. Although these are helpful for abbreviations, tables, figures and footnoting, as well as other purposes, students should be aware of the difference between a thesis and an article and make appropriate adaptations, approved by the graduate program adviser.

If the academic unit does not recommend a specific style manual, the student should refer to *A Manual for Writers of Term Papers, Theses, and Dissertations* (Fourth Edition) by Kate L. Turabian.

Thesis Typists

The student makes all necessary arrangements for the typing of the thesis. A list of thesis typists is available in the Office of Graduate Studies. The university Career Development Center also maintains a listing of students and others who have indicated their availability for typing assignments. An experienced typist is strongly advised, although the uni-

versity does not endorse or recommend individual typists.

Deadlines

Adequate time should be allowed for typing, reading and approval by the adviser, the committee members, and the university thesis reader.

It is recommended that the academic area sponsoring the degree program require that the final version of the thesis be submitted for approval *at least six weeks* prior to the last day of classes of the appropriate semester. The deadline for submission to the university thesis reader is *two weeks prior to the last day of classes*. For summer completion, the student should check with the academic unit and the Office of Graduate Studies for appropriate deadlines. The Office of Graduate Studies must receive notification from the Titan Bookstore by the *last day of final examinations* for the appropriate semester or session that the thesis has been deposited there and the fees paid. Ample time should be allowed for any special arrangements, such as duplication of the thesis by the Titan Bookstore or elsewhere, prior to the deadline.

Final Procedures

1. **Approval Signatures:** When the final draft is completed, the student obtains signatures on the approval page of all of the members of the committee. The title/approval page may be photocopied onto the correct paper stock; however, the signatures must be original. Photocopied signatures are not acceptable for binding or microfilming. The signatures must be in black ink. If there is a disagreement within the committee concerning the acceptability of the thesis, the approving signatures of a majority of the committee will be sufficient. Nonavailability of one member of the committee is not an adequate reason for acceptance of signatures by less than the full committee. No changes or additions will be allowed after the final signatures have been obtained. The student should arrange for at least three original title pages to be signed by the committee members. (Two originals are submitted to the bookstore with the thesis or project; one may be the student's personal copy or be used for the departmental copy.)
2. **University Thesis Reader:** The thesis is ready for review by the university thesis reader after the faculty have signed off and the thesis has been typed in its final form. One unbound copy of the thesis including the original approval page is taken to the Office of Graduate Studies for review by the thesis reader for conformity to all-university format guidelines. The copy submitted to the Graduate Studies Office may be a photocopy provided it is copied on the correct paper stock. The student, graduate program adviser, and thesis committee chair will be notified of any revisions or corrections which need to be made. Final approval on format is given by

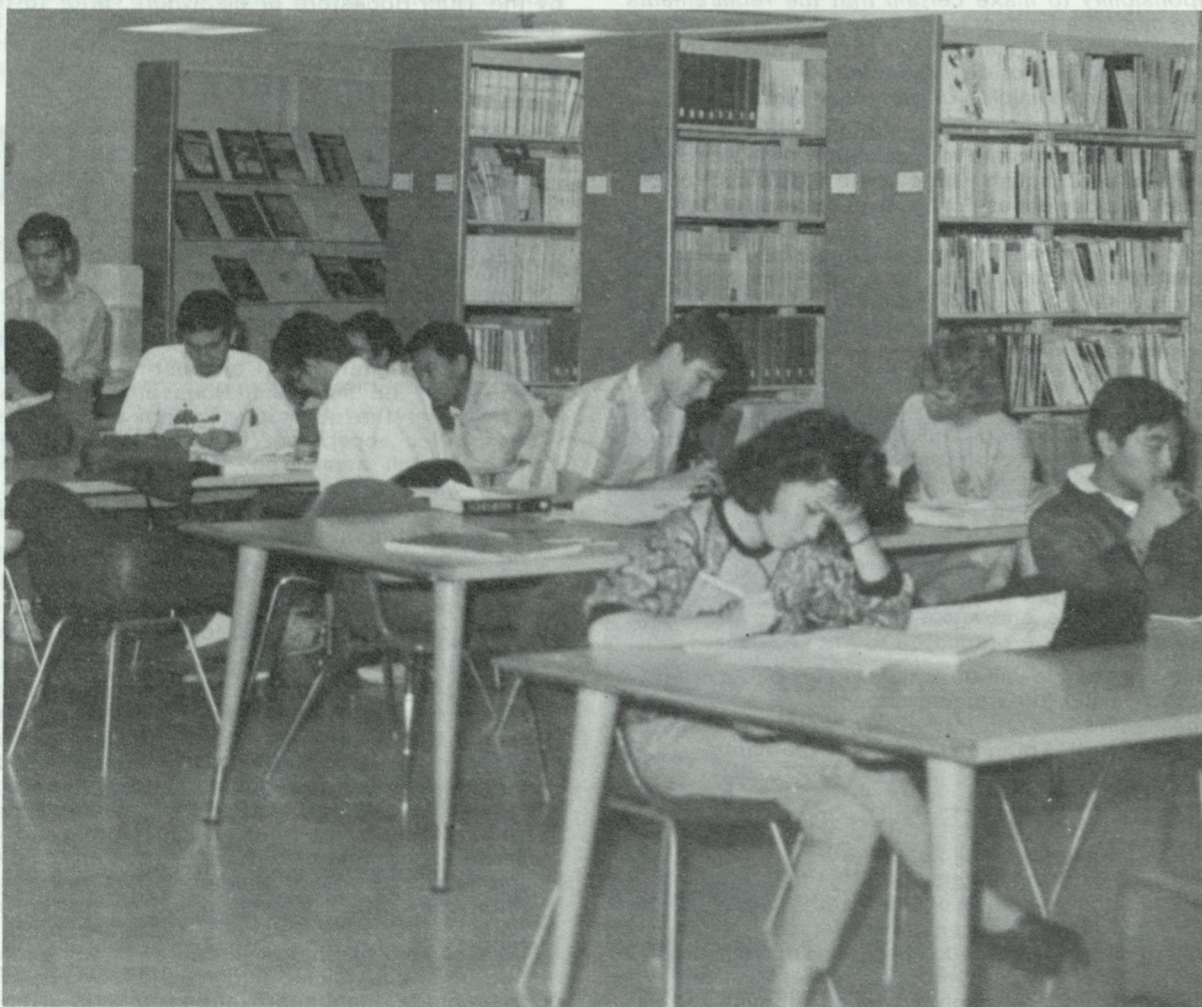
the Office of Graduate Studies on the "Thesis Approval Form."

3. **Binding and Microfilming:** The student takes the approved copy of the thesis, two signed title and approval pages, and the signed Thesis Approval Form to the Titan Bookstore and pays the appropriate fees. The bookstore arranges for the binding of the thesis by a local bindery and other services by University Microfilms International. Once submitted and receipted, the thesis may not be withdrawn by the student from the Titan Bookstore. The Titan Bookstore sends the approved original or duplicated copy (including the original signed approval page) to University Microfilms International for filming and publication of the abstract, and upon its return sends it to the bindery.

An agreement is normally completed for UMI to publish the abstract in *Masters Abstracts*, prepare a negative microfilm, and sell microfilm or xerographic copies to interested scholars. The

university will accept alternative methods of microfilming, duplication of printed copies and binding, subject to the specifications on file in the Graduate Studies Office. Arrangements for copyrighting are also possible, if desired, through UMI.

4. **Notification for Award of the Degree:** The grade for the thesis is reported in the usual manner to the office of the registrar by the appropriate faculty. The Titan Bookstore notifies the Office of Graduate Studies that the approved thesis has been deposited, the fees paid, and the agreement for microfilming and publication of the abstract completed by the student.
5. **Depositing of Thesis in Library:** When the thesis is returned by the bindery, the bound copy is deposited for circulation in the library. One set of the slides or separately mounted illustrative material is housed with the bound copy. The second set is placed in the university archives with the microfilm copy.



Steps in the Master's Degree

There may be additional steps for individual students in particular programs; for these, consult the program description and the academic unit (school, department or program) offering the degree program.

* Action initiated by student (as indicated below)

1. Admission to Graduate Standing: Conditionally Classified

• Apply for admission

- Declare objective(s), using precise codes on the application form
- Receive application acknowledgement from the Admissions Office
- Request two sets of official transcripts of all previous college-level course work attempted to be sent to Admissions Office
- Take tests, if required by program, and order test scores sent to Cal State Fullerton, designating appropriate academic unit on the test registration form
- Consult appropriate academic unit for advisement
- Provide appropriate academic unit with any other supporting statements or materials, as required

Recommendation for admission made by academic unit to Admissions Office

Receive notification of admission from Admissions Office

2. Graduate Standing: Classified

- Complete any course prerequisites and/or remove deficiencies
- **Apply for classified standing in the academic area offering the particular program prior to completion of nine units of study plan course work**
- Consult appropriate academic unit for advisement, including development of official study plan
- Provide appropriate academic unit with any other supporting statements or materials, as shown in program descriptions in this catalog
- Take tests if required by program, and order test scores sent to Cal State Fullerton, designating appropriate academic unit on the test registration form

Recommendation made by academic unit to the Dean of Graduate Studies

Receive notification of classified standing being granted from Graduate Studies when the study

plan is sent, showing approval by the Dean of Graduate Studies.

- If not received within a reasonable length of time, call the academic unit sponsoring the degree or Graduate Studies.

3. Completion of Requirements

- **Apply for a graduation check and advancement to candidacy prior to the beginning of the final semester and no later than the deadline initiating university review and formal approval by faculty.** The form is available at the Admissions and Records information desk, the Graduation Unit and the Graduate Studies Office. A graduation and diploma fee must be paid when filing request with the university cashier.
- Consult appropriate academic unit for advisement
- Complete written and/or oral examination, if required
- Complete thesis or project, if applicable
 - Obtain approval of committee
 - Obtain approval of university thesis reader (thesis only)
- Deposit approved copy of thesis and make arrangements for binding, microfilming and publication of the abstract in the Titan Bookstore by the applicable deadline

Final, approved study plan, with recommendation, sent by appropriate academic unit to Dean of Graduate Studies

Preliminary approval, pending adequate grades, and completion of any other requirements, granted by Dean of Graduate Studies.

- Complete all general and specific requirements, other than final course examinations, by the last day of classes, in order to assure granting of the degree by the end of the semester

Final verification of completion of requirements sent by the Graduate Studies Office to the registrar

Receive notification of award of degree from registrar approximately six weeks after the end of the semester

4. Commencement

- Make appropriate arrangements for cap, gown and hood rental in Titan Bookstore

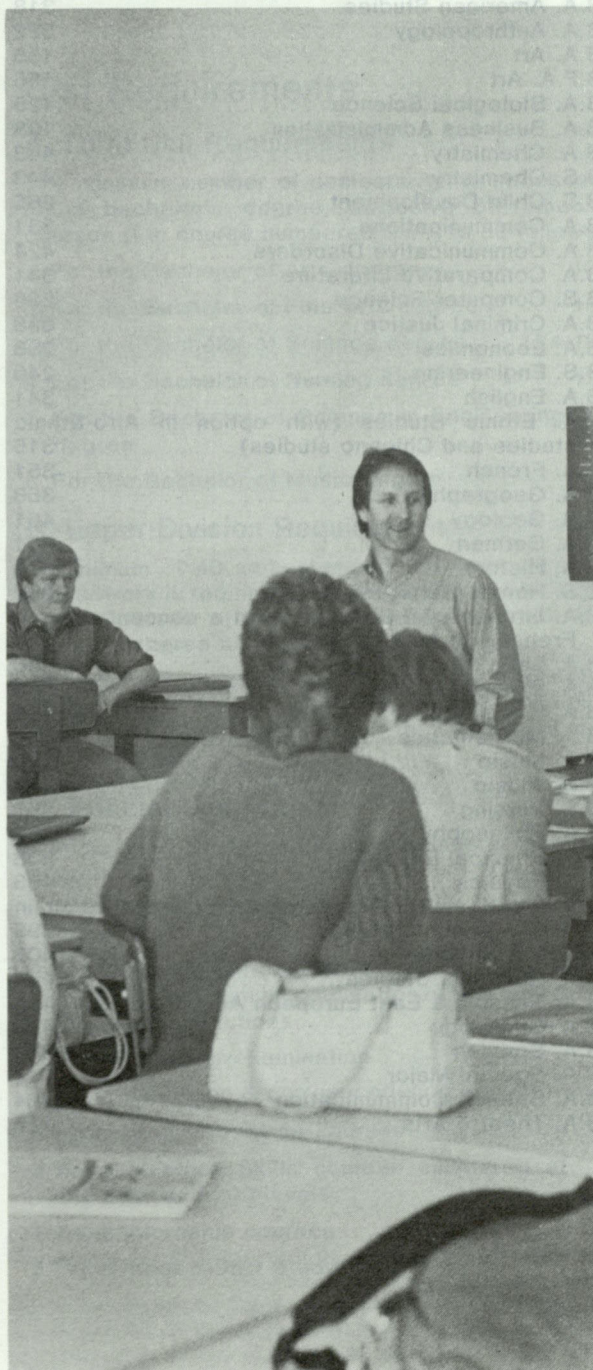
Commencement information sent by the Registrar's Office

Academic Programs

for the Bachelor's Degree

The following master's degree programs are listed:

M.S. Accountancy
M.A. American Studies
M.A. Anthropology
M.A. Art
M.F.A. Art
M.A. Biology
M.B.A. Business Administration
M.S. Chemistry
M.A. Communications
M.A. Communicative Disorders
M.A. Comparative Literature
M.B. Computer Science
M.S. Counseling
M.A. English
M.S. Environmental Science
M.A. History
M.A. International Studies
M.A. Journalism
M.A. Law
M.A. Library Science
M.A. Management
M.A. Marketing
M.A. Mathematics
M.A. Music
M.A. Nursing
M.A. Physical Education
M.A. Political Science
M.A. Psychology
M.A. Public Administration
M.A. Social Work
M.A. Sociology
M.A. Theology
M.A. Urban and Environmental Studies



Degree Programs

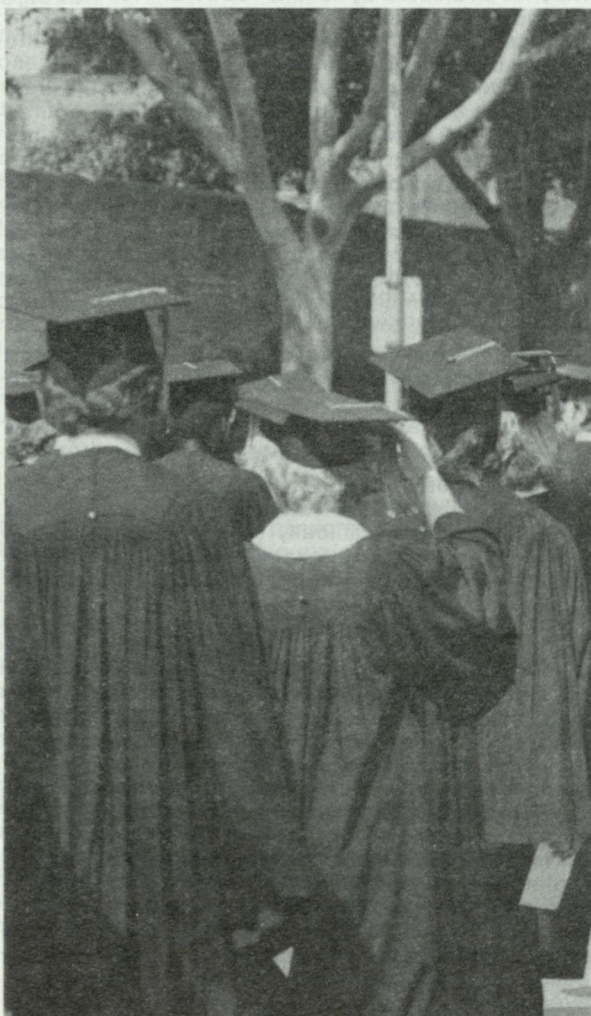
California State University, Fullerton offers the following baccalaureate degree programs which are described on the pages listed:

B.A. American Studies	318
B.A. Anthropology	322
B.A. Art	155
B.F.A. Art	155
B.A. Biological Science	435
B.A. Business Administration	198
B.A. Chemistry	443
B.S. Chemistry	443
B.S. Child Development	265
B.A. Communications	331
B.A. Communicative Disorders	424
B.A. Comparative Literature	341
B.S. Computer Science	236
B.A. Criminal Justice	338
B.A. Economics	206
B.S. Engineering	240
B.A. English	341
B.A. Ethnic Studies (with option in Afro-Ethnic studies and Chicano studies)	315
B.A. French	351
B.A. Geography	368
B.S. Geology	451
B.A. German	351
B.A. History	374
B.S. Human Services	292
B.A. International Business with a concentration in French, German or Spanish	215
B.A. Latin American Studies	380
B.A. Liberal Studies	383
B.A. Linguistics	385
B.A. Mathematics	456
B.A. Music	166
B.M. Music	166
B.S. Nursing	297
B.A. Philosophy	391
B.S. Physical Education	283
B.S. Physics	463
B.A. Political Science (including concentration in public administration)	395
B.A. Psychology	403
B.A. Religious Studies	411
B.A. Russian & East European Area Studies	416
B.A. Sociology	419
B.A. Spanish	351
B.A. Special Major	147
B.A. Speech Communication	424
B.A. Theatre Arts	178

The following master's degree programs are offered:

M.S. Accountancy	192
M.A. American Studies	318
M.A. Anthropology	322
M.A. Art	155
M.F.A. Art	155
M.A. Biology	435
M.B.A. Business Administration	198
M.S. Chemistry	423
M.A. Communications	331
M.A. Communicative Disorders	424
M.A. Comparative Literature	341
M.S. Computer Science	235
M.S. Counseling	268
M.A. Economics	206
M.S. Education (with concentrations in bilingual/bicultural education [Spanish-English], elementary curriculum and instruction, reading, educational administration, special education and teaching English to speakers of other languages)	263
M.S. Engineering	259
M.A. English	341
M.S. Environmental Studies	349
M.A. French	351
M.A. Geography	368
M.A. German	351
M.A. History	374
M.A. Linguistics	385
M.S. Management Science	223
M.A. Mathematics	456
M.A. Music	166
M.M. Music	166
M.S. Physical Education	283
M.A. Political Science	395
M.A. Psychology	403
M.S. Psychology (Clinical/Community)	403
M.P.A. Public Administration	395
M.A.T. Science	467
M.A. Social Sciences	417
M.A. Sociology	419
M.A. Spanish (including emphasis in bilingual studies)	351
M.A. Special Major	147
M.A. Speech Communication	424
M.S. Taxation	192
M.A. Theatre Arts	178
M.F.A. Theatre Arts (with concentrations in Acting, Directing, and Technical Theatre and Design)	178

Graduation Requirements for the Bachelor's Degree



Unit Requirements

A. Total Unit Requirements

The minimum number of semester units necessary for a bachelor's degree, exclusive of remedial courses (i.e. course numbered 0-99) is as follows:

1. For the Bachelor of Arts degree 124
2. For the Bachelor of Fine Arts degree 132
3. For the Bachelor of Science degree 124-132
4. For the Bachelor of Nursing degree 128
5. For the Bachelor of Science in Engineering degree 135
6. For the Bachelor of Music degree 132

B. Upper-Division Requirement

A minimum of 40 semester units of upper division coursework is required for any CSUF bachelor's degree. Courses offering upper division credit are those numbered at the 300- and 400-levels.

All units from upper division courses are applicable to the upper division units requirement, including units from courses in the major, the minor, and general education.

C. Special Unit Totals

The maximum number of special semester units accepted for a bachelor's degree is as follows:

1. Transferable units from community or junior colleges 70
2. Transferable units from a four-year university or college or from a combination of two and four-year institutions 94
3. From credit by examination 30
4. From extension & correspondence courses 24
5. From credit/no credit courses 36
6. From Reading Skills courses numbered at the 100- and 200-levels 4
7. From Internship courses 6
8. From Independent Study courses 9

Residence Requirement

A minimum of thirty (30) semester units must be earned in courses taken at California State University, Fullerton. Twenty-four (24) of these units must be earned in upper division courses. At least twelve (12) upper division semester units in the major must be taken at this institution. Courses taken in extension (except for summer session and intersession courses offered as part of the special sessions program) and units earned through credit by examination may not be used to fulfill these requirements.

Grade Point Average Requirements

Three grade point averages, each 2.0 or higher, are required for graduation:

- A. An average based on all units attempted, including those attempted at other institutions.
- B. An average based on all units attempted at CSUF.
- C. An average based on all units attempted in the major.

Distribution of Requirements

A. General Education

A minimum of 51 semester units are needed to complete CSUF's general education requirements. See the "General Education" section of this catalog.

B. Major

The unit requirements in a major varies substantially from major to major. Some majors require as little as 36 semester units while others require as much as 105 units. Refer to the Department listings for the specific requirements of any particular major.

C. Upper-Division Baccalaureate Writing Requirement

The university requires that every person completing bachelor's degrees under 1980-81 and later catalog requirements, demonstrate writing ability acceptable for graduation. The upper-division writing requirement has two parts; students must satisfy each:

Upper-division course requirement: Each major requires that students pass a specially designated upper-division course or courses of at least three semester units. **Examination requirement:** The university faculty requires that each student pass the University Examination in Writing Proficiency (EWP), which has been designed to measure writing ability.

Courses. The University Board on Writing Proficiency must certify the course or courses that each major department designates to fulfill the requirement. Departments and programs may specify either a single course of at least three units which involves in-

tensive instruction in writing, or two or more courses (a total of at least six units) in which students are required to write one or more lengthy papers, or several shorter ones, which involve the organization and expression of complex ideas. In these courses students will be given careful and timely evaluations of their writing and suggestions for improvement. An assessment of writing competence will be included in determining the final course grade.

Students must pass these courses with a grade of C or better. A list of courses designated for each major will appear in the class schedule each semester.

Examination. After completing 60 units toward the baccalaureate, students must take the University Examination in Writing Proficiency (EWP). The EWP consists of two parts, a machine-scored test of Standard Written English, and a 90-minute essay which is evaluated by faculty readers. Students who fail the examination may retake it until they pass it. A limited number of students who have failed the EWP two or more times may enroll in English 199, Intensive Writing Review. Credit in English 199 will be equivalent to passing the examination. This course will not count toward graduation requirements, nor will it satisfy the upper division writing course requirement described above. Information about registration for the EWP and testing dates is published in the class schedule each semester.

Petitions. In certain cases, students may petition the University Board on Writing Proficiency for exemption from or modification of the requirement.

1. Transfer students and candidates for a second baccalaureate may be certified as meeting the requirement after they have submitted to the Board acceptable evidence of having completed the equivalent to CSUF's upper division requirement.
2. Students may petition for substitution of an alternative to the EWP when exceptional circumstances, e.g. a clinically identified learning disability, make the examination inappropriate. Petitions must include documentation of the special circumstances and propose specific alternative means of demonstrating writing proficiency.

D. Minors

A minor is not required for the baccalaureate, however, students may elect to complete one or more minors from those available and have that noted on their records. A minor consists of an academic program specified by the academic departments in the catalog. In completing the requirements for a minor, a minimum of twelve (12) units, of which at least six (6) must be upper division, must be distinct and different from the units used to complete the requirements of the major. Any units above this minimum requirement which can be used to satisfy both the requirements for the minor and for the major may be double counted. General education courses, however, may be used to meet minor requirements.

E. Electives

After fulfilling the requirements in general education, and a specific major (and possibly a minor), each

student is free to choose the rest of the courses needed to complete the semester units required for graduation. Different majors vary considerably in both the number of units they require in their own and related fields. They also vary considerably in the amount of latitude or choice they permit in selecting courses to satisfy the major requirement. The general education requirement encourages freedom of choice within the natural sciences, social sciences, arts and humanities, and basic subjects. Students at the university use their electives to broaden their general education, deepen some aspect of their specialties, pursue work in related fields, and satisfy curiosities and enthusiasms for particular subjects or areas of interest.

Advisement on general education and electives is provided by the Academic Advisement Center.

F. Multiple Majors and Second Baccalaureate Degrees

Within the units required for the baccalaureate it is possible for a student to complete the requirements for more than one major within a degree program when the additional major is within the degree of the first major. At least 24 units, including 12 at the upper-division level, in each bachelor of arts major, or 36 units, including 18 at the upper-division level, in each bachelor of science major, must be applied exclusively to the respective major and may not be used to meet requirements in other majors or in general education. The student shall declare the additional major with the appropriate department not later than the beginning of the student's final year of study. The completion of additional majors will be noted at the time of graduation by appropriate entries on the academic record and in the commencement program.

It is also possible for a student to complete a major in one degree program and an additional major from a different program, provided the minimum units described in the preceding paragraph are applied exclusively to the respective major and are not used in other majors or in general education. In this instance, the student has the option of which degree he or she will receive with the major appropriate to that degree. The completion of the additional major will be noted on the student's academic record. The university does not award two degrees to the individual who completes multiple majors in a four-year degree program.

Second baccalaureate degrees:

First degree completed elsewhere, second at Fullerton. Students seeking a bachelor's degree from Fullerton after having received a baccalaureate from another institution may qualify for graduation with the approval and recommendation of the faculty upon completion of the following:

- (1) General Education requirements: Students holding a baccalaureate degree from an accredited institution will be held to (a) the breadth requirements of Executive Order 338, i.e. 12 units in each of the areas of arts and humanities, social sciences, and math and science, (b) the statutory requirements and (c) the English Writing Proficiency

requirements. Students will not be held to specific CSUF categories or courses.

- (2) all requirements in the major field of study
- (3) residence and scholarship requirements

Two baccalaureates from Fullerton. With the approval and recommendation of the faculty, a student may qualify for a second baccalaureate under the following circumstances:

- (1) The second field of study is offered in a different degree (e.g., B.A. to B.S.)
- (2) At least 30 units, including 24 upper-division units and 12 in the major, are earned in residence after the conferral of the first degree
- (3) all requirements of the major are fulfilled

Units included in second baccalaureate programs may not apply to graduate degrees or credential programs.

Graduation Requirement Check

A candidate for graduation must file an application for a graduation requirements check during registration week for the semester prior to the semester in which the student expects to graduate. The graduation and diploma fee is required when the application is filed. Application forms are available at the Admissions and Records information counter and in the graduation unit.

Candidates for the baccalaureate should refer to the semester class schedule for application filing dates. A senior should have completed at least 100 units (including the current work in progress) and a substantial portion of the major requirements before requesting a graduation check. If the candidate does not complete the requirements in the semester indicated, a change of graduation date must be filed in the Office of Admissions and Records.

Faculty Approval and Recommendation

Under provisions of the Academic Senate, the Office of Admissions and Records publishes a list of degree candidates twice a year: in the fall and in the spring (for both spring and summer graduates). After review and approval by the faculty, and upon verification of the completion of requirements, diplomas are issued with the last day of the respective term as the official date of graduation.

Annual commencement exercises are held at the end of the spring semester for those who completed degree requirements mid-year and for those completing degree requirements in the spring semester or summer session. The president of the university, with the authority of the Board of Trustees, confers all degrees, subject to the completion of remaining requirements.

Note: Students completing bachelor degree requirements who wish to continue their studies at the university for postbaccalaureate or graduate degree objectives must apply for admission declaring their new objective.

General Education

General Education Objectives

The general education-breadth requirements are designed so that, taken with the major-depth program and electives presented by each baccalaureate candidate, they will assure that graduates have made noteworthy progress toward becoming truly educated persons. Particularly, the purpose of these requirements is to provide means whereby graduates:

- A. will have achieved the ability to think clearly and logically, to find and critically examine information, to communicate orally and in writing, and to perform quantitative functions;
- B. will have acquired appreciable knowledge about their own bodies and minds, about how human society has developed and how it now functions, about the physical world in which they live, about the other forms of life with which they share that world, and about the cultural endeavors and legacies of their civilization;
- C. will have come to an understanding and appreciation of the principles, methodologies, value systems, and thought processes employed in human inquiries.

General Education Requirements

All students beginning studies fall 1987 or later must complete a minimum of 51 semester units of general education courses selected in accordance with the pattern designated on the following pages. *General education courses must be selected from an approved list.* Students should refer to the latest university Schedule of Classes for the most up-to-date list of approved classes.

Students must complete at least nine units of upper-division general education course work taken after the student has achieved junior standing. At least

nine units of general education must be earned in residence at California State University, Fullerton.

Courses offered by the department of the student's major may *not* be used to fulfill the unit requirement of categories III through IV, except in those cases where the same course is required both in the major and in general education and no alternative from any other department is available. Also, no more than nine units from any single department may be used in meeting the requirements of general education.

At least three (3) semester units of Cultural Diversity course work must be taken from among the asterisked courses in Section IV.A.1. or IV.A.2. At least one laboratory course must be taken from among the asterisked courses in Sections III.A.1., III.A.2., or III.A.3.

Among the following list of requirements a few courses appear in more than one category. These courses may only be used to fulfill the requirements of one, and *not* both, of the categories within which they appear.

A score of T145 or higher on the English Placement Test (EPT), or completion of English 99 with a grade of C or better, is a prerequisite for enrollment in courses in category I.A.2. Written Communication, for all students except those with an exemption.

A score of 38 or higher on the Entry Level Mathematics (ELM) examination is a prerequisite for enrollment in courses in Category II.A.4. Mathematics for all students except those with an exemption.

Certification Policy

Under provisions of Executive Orders 338 and 342, accredited colleges and universities may certify the completion of part of the 48-51 units required in general education. Within the policy of the Board of Trustees, Cal State Fullerton will accept such certification of general education up to a maximum of 39 semester units, but may accept no more in general education than the number of units required in each area and no more than 30 units in areas in which the student has not been certified.

CSUF GENERAL EDUCATION CATEGORIES AND COMMUNITY COLLEGE EQUIVALENT CATEGORIES

Community College Category

I. Basic Subjects (9 units minimum)

NOTE: Grade of C or better required in each section of category I.

- | | |
|---|------|
| A. Oral Communication (3 units minimum) | A-1 |
| B. Written Communication (3 units minimum) (<i>Prerequisite: EPT</i>) | A-2 |
| C. Critical Thinking (3 units minimum) | A-3 |
| D. Reading | none |

II. Historical and Cultural Foundations (12 units minimum)

- | | |
|--|---------|
| A. The Development of Civilization (6 units minimum) | |
| 1. Western Civilization to the Renaissance | C-6 |
| 2. Western Civilization since the Renaissance | D-6 |
| B. American History, Institutions and Values (6 units minimum) | |
| 1. American History (3 units minimum) | D-5/F-1 |
| 2. Government (3 units minimum) | F-2 |

III. Disciplinary Core Courses (21 units minimum)

- | | |
|---|------|
| A. Mathematics and Natural Science (12 units minimum)* | |
| 1. Physical Science (3 units minimum) | B-1 |
| 2. Biological Science (3 units minimum) | B-2 |
| 3. Alternatives in the Natural Sciences | none |
| * At least one laboratory course | B-3 |
| 4. Mathematics (3 units minimum) (<i>Prerequisite: ELM</i>) | B-4 |

NOTE: Grade of C or better required in section III.A.4.

- | | |
|--|--------------|
| B. Arts and Humanities (6 units minimum) | |
| 1. Introduction to the Arts (3 units minimum) | C-1 |
| 2. Introduction to the Humanities (3 units minimum) | C-2 thru C-4 |
| C. Social Sciences (3 units minimum) | |
| 1. Introduction to the Social Sciences (3 units minimum) | D-1 thru D-4 |

IV. Implications, Explorations and Life-Long Learning (9 units minimum)

- | | |
|---|--------------|
| A. Implications and Explorations (6 units minimum)** | |
| 1. Implications/Explorations/Participatory Experience
in the Arts and Humanities (3 units minimum) | C-1 thru C-5 |
| 2. Implications/Explorations in the Social Sciences (3 units minimum) | D-1 thru D-5 |
| **At least one asterisked Cultural Diversity course | C-7/D-7 |
| B. Life-Long Learning (3 units minimum) | E |

I. BASIC SUBJECTS (9 units minimum)

NOTE: A grade of "C" or better is required in sections I.A., I.B., and I.C. and III.B.4.

A. Oral Communication (3 units minimum)

Courses in this area are designed to impart skills in the use of human symbolic interaction, focusing on effective speaking. Choose from:

Chicano Studies 102 Communication Skills (3)
Speech Comm 100 Introduction to Human Communication (3)
Speech Comm 102 Public Speaking (3)
Theatre 110 Introduction to Oral Interpretation (3)

B. Written Communication (3 units minimum)

The course in this area is designed to impart skills in organizing, analyzing, and expressing thoughts and concepts in standard written English. Students must pass the English Placement Test prior to enrolling in the course.

English 101 Beginning College Writing (3)

C. Critical Thinking (3 units minimum)

Courses in this area are designed to develop skills in critical thinking, including the ability to distinguish fact from judgment and belief from knowledge, to reason inductively and deductively, and to understand the formal and informal fallacies of language and thought. Choose from:

English 103 Critical Reasoning and Writing (3)
Philosophy 200 Argument and Reasoning (3)
Philosophy 210 Logic (3)
Psychology 110 Reasoning and Problem Solving (3)
Speech Comm 235 Essentials of Argumentation and Debate (3)

D. Reading Communication

The course in this area is designed to impart skills in the use of human symbolic interaction, focusing on effective reading.

Reading 201 Academic Reading: Analysis & Strategies (3)

II. HISTORICAL AND CULTURAL FOUNDATIONS (12 units minimum)

A. The Development of Civilization (6 units minimum)

Courses in this area give a holistic view of the development of society--its values, traditions, and institutions.

History 110A Western Civ. to the 16th Century (3)
AND
History 110B Western Civilization Since the 16th Century (3)

B. American History, Institutions and Values (6 units minimum)

Courses in these sections meet Title 5, section 40404, requirements by providing "comprehensive study of American history and American government including the historical development of American in-

stitutions and ideals, the Constitution of the United States and the operation of representative democratic government under the Constitution, and the process of state and local government."

1. American History (3 units minimum)

Choose from:

Afro-Ethnic 190 Surv. of Am. Hist. with Emphasis on Ethnic Minorities (3)
Chicano Studies 190 Surv. of Am. Hist. with Emphasis on Ethnic Minorities (3)
American Studies 201 Introduction to American Studies (3)
History 170A United States to 1877 (3)
History 170B United States Since 1877 (3)
History 180 Survey of American History (3)
History 190 Surv. of Am. Hist. with Emphasis on Ethnic Minorities (3)

NOTE: Students who take History 170A must also take History 170B and vice versa.

2. Government (3 units minimum)

Political Science 100 American Government (3)

NOTE: Transfer students from outside the State of California who have *ALREADY* completed a basic course in American Government may substitute Political Science 300 Contemporary Issues in California Government and Politics (3) for Political Science 100.

III. DISCIPLINARY CORE COURSES (21 units minimum)

A. Mathematics and Natural Sciences (12 units)

At least one laboratory course must be taken in III. A.1., III.A.2., or III.A.3. Approved laboratory courses are indicated with an asterisk (*).

1. Physical Science (3 units minimum)

Courses in this area provide the content and methodology that form the bases for studies in the physical sciences. Choose from:

Chemistry 100 Survey of Chemistry (3)
Chemistry 100L* Survey of Chemistry Lab (1)
Chemistry 115* Introductory General Chemistry (4)
Chemistry 120A* General Chemistry (5)
Geological Sci 101 Physical Geology (3)
Geological Sci 101L* Physical Geology Lab (1)
Physics 123 Perspectives of Man's Physical Universe (3)
Physics 123L* Perspectives of Man's Physical Universe Lab (1)
Physics 211A Elementary Physics (3)
Physics 211AL* Elementary Physics Lab (1)
Physics 225A Fundamental Physics: Mechanics (3)
Physics 225AL* Fundamental Physics: Lab (1)

2. Biological Science (3 units minimum)

Courses in this area provide the content and methodology that form the bases for studies in the biological sciences.

Biological Sci 101 Elements of Biology (3)
 Biological Sci 101L* Elements of Biology (1)
 Biological Sci 141 Principles of Botany (2)
 Biological Sci 141L* Principles of Botany Lab (2)
 Biological Sci 161 Principles of Zoology (2)
 Biological Sci 161L* Principles of Zoology Lab(2)

3. Alternatives in Natural Sciences and Mathematics

Courses in this area are topical and thematic specialized inquiries into the contributions of the sciences and mathematics. These courses have a substantial scientific and/or mathematical content. In addition, they are either introductory to the major subdisciplines or they relate science and/or mathematics to significant social problems or other related disciplines. At least one lab course is required.

Anthropology 101 Introduction to Biological Anthropology (3)
 Anthropology 375 Science in Archaeology (3)
 Biological Sci 102 Issues in Environmental Biology (3)
 Biological Sci 305 Human Heredity & Development (3)
 Biological Sci 306 Biology of Aging (3)
 Biological Sci 313 Human Genetics (3)
 Biological Sci 314 Human Issues in Genetics (1)
 Biological Sci 317 Wildlife Conservation: Current Issues and Future Directions (1)
 Biological Sci 319 Marine Biology (3)
 Biological Sci 319L* Marine Biology Lab (1)
 Biological Sci 323 Biol. of Sexually Transmitted Diseases (STD) (1)
 Biological Sci 352 Plants and Life (3)
 Biological Sci 353 Principles of Horticulture (2)
 Biological Sci 353L* Principles of Horticulture Lab (1)
 Biological Sci 360 Biology Of Human Sexuality (1)
 Biological Sci 367 Insects & The Human Ecosystem (3)
 Chemistry 111 Nutrition & Drugs (3)
 Computer Sci 381 Knowledge Engineering (3)
 Geography 110 Principles of Physical Geography (3)
 Geography 120 Environment and Change (3)
 Geological Sci 120 Introduction to Earth Science (3)
 Geological Sci 120L* Earth Science Lab (1)
 Geological Sci 140 Earth's Atmosphere (3)
 Geological Sci 201 Earth History (4)
 Geological Sci 310 Topics in California Related Geology (1-3)
 Geological Sci 333 Oceanography (3)
 Geological Sci 335 General Hydrology (3)
 Geological Sci 340 General Meteorology (3)
 Geological Sci 376 Applied Geology (3)
 History 230 Ascent of Man (3)
 History 430 Hist. of Sci.: Copernicus to the Present (3)

Philosophy 303 Introduction to Philosophy of Science (3)
 Philosophy 384 Philosophy of the Physical Sciences (3)
 Philosophy 386 Philosophy of Biology (3)
 Physical Sci 100 Man and His Physical Environment (4)
 Physics 100 Man and His Physical Environment (4)
 Physics 105 Fads & Fallacies in the Name of Science (1)
 Physics 107 Nuclear Energy and Its Impact on Society (1)
 Physics 200 Introduction to Astronomy (4)
 Physics 384 Philosophy of the Physical Sciences (3)
 Sociology 303 Statistics for the Social Sciences (3)
 Speech Comm 303 Biology of Human Communication (3)

4. Mathematics (3 units minimum)

Courses in this area are designed to provide a basis for understanding mathematical concepts and methodologies and their applications. *A grade of "C" or better is required in this section.* Students must pass the Entry Level Mathematics (ELM) test before taking any course in this section. Choose from:

Management Sci 361 Prob. & Stat. Methods in Bus. & Econ. (4)
 Mathematics 100 Precalculus Mathematics (4)
 Mathematics 110 Mathematics for Liberal Arts Students (3)
 Mathematics 120 Intro to Probability & Statistics (3)
 Mathematics 130 A Short Course in Calculus (4)
 Mathematics 135 Business Calculus (3)
 Mathematics 150A Analytic Geometry and Calculus (4)
 Mathematics 338 Stat. Applied to Natural Sciences (3)
 Mathematics 368 First Course in Symbolic Logic (3)
 Philosophy 368 First Course in Symbolic Logic (3)

B. Arts and Humanities (6 units minimum)

1. Introduction to the Arts (3 units minimum)

Courses in this area are designed to motivate students to cultivate and refine their affective, cognitive and physical faculties through studying great works of the human imagination. Choose from:

Art 101 Introduction to Art (3)
 Art 201A,B Art and Civilization (3,3)
 Art 311 Foundations of Modern Art (3)
 Art 312 Art of the 20th Century-1900 to Present (3)
 Dance 101 Introduction to Dance (3)
 Music 100 Introduction to Music (3)
 Music 101 Music Theory for Non-Music Majors (3)
 Theatre 100 Introduction to the Theatre (3)
 Theatre 175 History of Western Theatre (3)

2. Introduction to the Humanities (3 units minimum)

Courses in this area introduce students to reflective inquiry into the values and subjective responses of civilization in its language, philosophy, and literature.

- Anthropology 100 Non-Western Cultures & the West. Tradition (3)
Comparative Lit 110 Literature of the Western World from Ancient through Medieval Times (3)
Comparative Lit 111 Literature of the Western World from the Renaissance through the 19th Century (3)
Comparative Lit 324 World Literature to 1650 (3)
Comparative Lit 325 World Literature from 1650 (3)
Comparative Lit 352 African Literature (3)
Comparative Lit 373 Masters of Russian Literature (3)
English 110 Literature of the Western World from Ancient through Medieval Times (3)
English 111 Literature of the Western World from Renaissance through the 19th Century (3)
English 200 Introduction to Literature (3)
English 311 Masters of British Literature to 1760 (3)
English 312 Masters of British Literature from 1760 (3)
English 321 American Literature to Whitman (3)
English 322 American Literature from Twain to the Moderns (3)
Foreign Lang 101 Fundamental Foreign Languages (3-5)
Foreign Lang 102 Fundamental Foreign Languages (3-5)
Foreign Lang 203 Intermediate Foreign Languages (3-5)
Foreign Lang 204 Intermediate Foreign Languages (3-5)
Chinese 101 Fundamental Chinese (5)
French 230 Intermediate Diction and Phonetics (2)
French 240 Intermediate Conversation and Comp. (2)
German 100A-K Personalized Inst. in Fund. German (3-10)
German 213 Intermediate Reading (2)
German 214 Intermediate Reading (2)
Greek 299 Directed Study (1-3)
Italian 299 Directed Study (1-3)
Latin 299 Directed Study (1-3)
Spanish 103 Intensive Review of Fundamental Spanish (5)
Spanish 201 Spanish for Hispanics (3)
Spanish 213 Intermediate Conversation (2)
Spanish 214 Intermediate Composition (2)
Linguistics 106 Language and Linguistics (3)
Linguistics 301 Sanskrit (3)
Philosophy 100 Introduction to Philosophy (3)
Philosophy 110 Comp. Study of the World's Great Religions (3)

- Philosophy 115A The Western Tradition: Philosophy (3)
Philosophy 115B The Western Tradition: Philosophy (3)
Philosophy 290 History of Philosophy: Greek Philosophy (3)
Philosophy 300 History of Philosophy: Rationalism & Empiricism (3)
Philosophy 310 Ethics (3)
Religious Studies 101 Fundamental Hebrew-A (4)
Religious Studies 102 Fundamental Hebrew-B (4)
Religious Studies 110 Comp. Study of the World's Great Religions (3)
Religious Studies 200 Introduction to Christianity (3)
Religious Studies 210 Intro. to Judaism
Religious Studies 301 Sanskrit (3)

C. Social Sciences (3 units minimum)

1. Introduction to the Social Sciences (3 units minimum)

Courses in this area provide an introduction to the conceptual and methodological aspects of the social sciences to human, social, political, and economic institutions and behavior in their contemporary and historical settings.

- American Studies 101 Intro. to American Culture Studies (3)
Anthropology 102 Introduction to Cultural Anthropology (3)
Anthropology 327 Origins of Civilization (3)
Economics 100 The Economic Environment (3)
Economics 201 Principles of Microeconomics (3)
Economics 210 Principles of Economics (3)
Geography 100 World Habitats (3)
Political Sci 200 Introduction to the Study of Politics (3)
Psychology 101 Introductory Psychology (3)
Sociology 101 Introduction to Sociology (3)

IV. IMPLICATIONS, EXPLORATIONS AND LIFE-LONG LEARNING (9 units minimum)

A. Implications and Explorations in the Arts and Humanities (6 units minimum)

At least one asterisked (*) course in IV.A.1., or IV.A.2. must be taken. Asterisked courses fulfill the cultural diversity requirement. Cultural diversity courses are designed to enhance understanding of cultural differences within or between western and/or non-western societies.

1. Implications, Explorations and Participatory Experience in the Arts and Humanities (3 units minimum)

Courses in this area deepen the appreciation of the content of III.B.1. and III.B.2. Choose from:

- Afro-Ethnic 314 Pan-African Dance and Movement (3)*
Afro-Ethnic 320 Black American Intellectual Thought (3)*
Afro-Ethnic 352 African Literature (3)

- Afro-Ethnic 403 Oral History of Ethnic America (3)*
- Afro-Ethnic 410 Afro-American Literature (3)
- Afro-Ethnic 437 American Indian Religions and Philosophy (3)
- Afro-Ethnic 460 Afro-American Music Appreciation (3)*
- Anthropology 104 Traditional Cultures of the World (3)*
- Anthropology 305 Anthropology of Religion (3)*
- Anthropology 306 Comp. Aesthetics and Symbolism (3)*
- Art 100 Exploratory Course in Art (3)
- Art 103 Two-dimensional Design (3)
- Art 104 Three-dimensional Design (3)
- Art 106A Beginning Ceramics (3)
- Art 107A,B Beginning Drawing & Painting (3,3)
- Art 205A Beginning Crafts (3)
- Art 216A Beginning Sculpture (3)
- Art 326A Ceramic Sculpture (3)
- Art 338A Creative Photography (3)
- Art 364A Stained Glass (3)
- Chicano Studies 302 Ancient Mexican Culture (3)*
- Chicano Studies 304 Music of Mexico*
- Chicano Studies 316 The Chicano Music Experience (3)*
- Chicano Studies 336 Main Trends in Spanish-Amer. Lit. (3)
- Chicano Studies 337 Contemporary Chicano Literature (3)
- Chicano Studies 430 The Evolution of Mexican Lit. (3)
- Chicano Studies 433 Mexican Literature Since 1940 (3)
- Chicano Studies 440 Mexican Intellectual Thought (3)*
- Comparative Lit 312 Bible as Literature (3)
- Comparative Lit 315 Classical Mythology in World Lit. (3)
- Comparative Lit 374 Soviet Literature (3)
- Comparative Lit 424 Chinese Literature (3)*
- Comparative Lit 426 Japanese Literature (3)*
- Dance 112 Beginning Classical Ballet (2)
- Dance 122A Beginning Modern Dance (2)
- Dance 126 Dance Improvisation (2)
- Dance 132 Beginning Jazz Dance (2)
- Dance 301 Dance and Cultural Diversity (3)*
- English 105 Introduction to Creative Writing (3)
- English 204 Intermediate Creative Writing (3)
- English 320 Literature of the American Indians (3)*
- English 352 African Literature (3)
- English 353 Cultural Pluralism in Amer. Lit. (3)*
- English 354 Linguistics & Literature (3)
- French 315 Origins of Modern France (3)*
- French 375 Introduction to Literature (3)
- German 315 Introduction to German Civilization (3)*
- German 375 Introduction to Literary Forms (3)
- Japanese 315 Introduction to Japanese Civilization (3)*
- Japanese 316 Modern Japan (3)*
- Portuguese 320 Intro to Luso-Brazilian Culture and Civilization (3)*
- Spanish 315 Intro to Spanish Civilization (3)*
- Spanish 316 Intro to Spanish-American Civilization (3)*
- Spanish 375 Intro to Literary Forms (3)
- History 465A History of India (3)*
- History 483 American Religious History (3)
- Library 200 Elements of Bibliographic Investigation (3)
- Linguistics 354 Linguistics and Literature (3)
- Music 183 Voice Class for Non-majors (1)
- Music 184A Piano Class for Non-majors (1)
- Music 184B Piano Class for Non-majors (1)
- Music 301 Techniques of Song Writing (3)
- Music 302 History of Jazz (3)*
- Music 303 Ethnic Music (3)*
- Music 304 Music of Mexico (3)*
- Music 352 Symphonic Music in Western/Eastern Cultures (3)
- Music 361A Symphony Orchestra (1)
- Music 361B University Choir (1)
- Music 361C University Concert Band (1)
- Music 361E University Singers (1)
- Music 361F University Wind Ensemble (1)
- Music 361W Women's Choir (1)
- Music 362L Lab Band (1)
- Philosophy 312 Business & Professional Ethics (3)
- Philosophy 314 Medical Ethics (3)
- Philosophy 323 Existentialism (3)
- Philosophy 350 Oriental Philosophy (3)*
- Political Sci 340 Political Philosophy (3)
- Religious Studies 250 The Religion of Islam (3)*
- Religious Studies 270 Intro to the Oriental Religions (3)*
- Religious Studies 345A Hist. & Dev. of Christian Thought: The Beginning to 1274 (3)
- Religious Studies 345B Hist. & Dev. of Christian Thought: 1275 to the Present (3)
- Religious Studies 346A Hist. & Dev. of Jewish Thought: Biblical Origins to Maimonides (3)
- Religious Studies 346B Hist. & Dev. of Jewish Thought: 1204 to the Present (3)
- Religious Studies 347A Hist. & Dev. of Hinduism to 1200 (3)*
- Religious Studies 347B Hist. & Dev. of Hinduism from 1200 (3)*
- Religious Studies 350 Major Christian Traditions (3)
- Theatre 163 Beginning Acting (3)
- Theatre 206A Mime and Pantomime (3)
- Theatre 277 Costume Fundamentals (3)
- Theatre 310 Oral Interpretation of Shakespeare (3)
- Theatre 410A Oral Interpretation of Prose Lit. (3)
- Theatre 410B Oral Interpretation of Poetry (3)
- Theatre 410C Oral Interpretation of Drama (3)
- Theatre 411 Oral Interpretation of Children's Lit. (3)
- Theatre 414 Readers Theatre (3)

2. Implications and Explorations in the Social Sciences (3 units minimum)

Courses in this area are topical and thematic, specialized inquiries into the contributions of the social sciences to the understanding of human behavior, both within and across traditional disciplines. Choose from:

- Afro-Ethnic 101 Introduction to Ethnic Studies (3)*
- Afro-Ethnic 107 Introduction to Afro-American Studies (3)*
- Afro-Ethnic 220 The Indian in American History (3)*
- Afro-Ethnic 245 A Study of Black Political Development to 1900 (3)*
- Afro-Ethnic 280 Afro-American History (3)*
- Afro-Ethnic 301 Afro-American Culture (3)*
- Afro-Ethnic 309 The Black Family (3)*
- Afro-Ethnic 310 Black Women in America (3)*
- Afro-Ethnic 311 Intracultural Socialization Patterns (3)*
- Afro-Ethnic 312 American Indian Women (3)*
- Afro-Ethnic 317 Black Politics (3)*
- Afro-Ethnic 331 Tribalism and Reservation Life (3)*
- Afro-Ethnic 335 History of Racism (3)*
- Afro-Ethnic 346 The African Experience (3)*
- Afro-Ethnic 422 Psychology of the Afro-American (3)*
- American Studies 300 Introduction to Amer. Popular Culture (3)
- American Studies 301 The American Character (3)*
- American Studies 345 The American Dream (3)
- American Studies 386A American Social History, 1750-1860 (3)
- American Studies 386B American Social History, 1865-1930 (3)
- American Studies 411 The White Ethnic in America (3)*
- American Studies 450 Women in American Society (3)*
- Anthropology 103 Introduction to Archaeology (3)
- Anthropology 300 Language and Culture (3)
- Anthropology 302 Culture and Personality: Psychological Anthropology (3)
- Anthropology 321 The American Indian (3)*
- Anthropology 325 Peoples of South America (3)*
- Anthropology 327 Origins of Civilizations (3)
- Anthropology 328 Peoples of Africa (3)*
- Anthropology 340 Peoples of Asia (3)*
- Anthropology 345 Peoples of the Mid. East & No. Africa (3)*
- Anthropology 347 Peoples of the Pacific (3)*
- Anthropology 360 Contemporary American Culture (3)*
- Anthropology 450 Culture and Education (3)
- Child Dev 312 Human Growth and Development (3)
- Chicano Studies 106 Introduction to Chicano Studies (3)*
- Chicano Studies 220 Mexican Heritage (3)*
- Chicano Studies 305 The Chicano Family (3)*

- Chicano Studies 403 Cult. Diff. in Mexico & the Southwest (3)*
- Chicano Studies 406 La Chicana (3)*
- Chicano Studies 431 The Chicano Child (3)*
- Chicano Studies 432 The Chicano Adolescent (3)*
- Chicano Studies 445 History of the Chicano (3)*
- Chicano Studies 450 The Chicano and Contemporary Issues (3)*
- Chicano Studies 453 Mexico Since 1906 (3)*
- Chicano Studies 460 The Chicano and Politics (3)*
- Communications 233 Mass Communication in Modern Society (3)
- Counseling 380 Theories and Techniques of Counseling (3)
- Criminal Justice 300 Introduction to Criminal Justice (3)
- Economics 201 Principles of Microeconomics (3)
- Economics 202 Principles of Macroeconomics (3)
- Economics 330 Comparative Economic Systems (3)
- Economics 331 The Soviet Economy (3)
- Economics 332 Economic Problems of Asia (3)
- Economics 333 Econ. Dev.: Analysis & Case Studies (3)
- Economics 334 Econ. Prob. of Latin Amer. & the Caribbean (3)
- Economics 350 American Economic History (3)
- Economics 361 Urban Economics (3)
- Economics 362 Environmental and Resource Economics (3)
- Geography 160 Culture and Environment (3)
- Geography 170 The City (3)
- Geography 332 United States and Canada (3)*
- Geography 333 Latin America (3)*
- Geography 344 Africa (3)*
- Geography 350 Conservation & Ecology in America (3)
- History 270 Women in American History (3)*
- History 350 History of Latin Amer. Civilization (3)*
- History 360 Modern Asia: Nationalism & Revolutionary Change (3)*
- History 370 American Sex Reformers (3)
- History 386A American Social History, 1750-1860 (3)
- History 386B American Social History, 1865-1930 (3)
- History 452 20th Century Brazil (3)*
- History 455 Latin American Since 1945 (3)*
- Human Services 311 Intracultural Socialization Patterns (3)
- Human Services 380 Theories and Techniques of Counseling (3)
- Linguistics 108 Linguistics and Minority Dialects (3)*
- Linguistics 369 Language, Sex Roles and the Brain (3)
- Linguistics 412 Sociolinguistics (3)
- Philosophy 302 Introduction to Women's Studies (3)*

Philosophy 341 Assumptions of Psychotherapy (3)
 Philosophy 385 Philosophy of Social Sciences (3)
 Physical Educ 381 Human Movement in Cultural Perspective (3)
 Political Sci 300 Contemporary Issues in Calif. Government & Politics (3)
 Political Sci 309 Introduction to Metropolitan Politics (3)
 Political Sci 310 American Political Behavior (3)
 Political Sci 315 American Political Process (3)
 Political Sci 317 Black Politics (3)*
 Political Sci 320 Politics, Policy and Administration (3)
 Political Sci 330 Comparative Political Analysis (3)
 Political Sci 350 World Politics (3)
 Political Sci 352 American Foreign Policy (3)
 Political Sci 375 Public Law (3)
 Political Sci 445 Political Learning & Socialization (3)
 Political Sci 460 The Chicano & Politics (3)*
 Psychology 312 The Psych. of Human Sexual Behavior (3)
 Psychology 311 Educational Psychology (3)
 Psychology 331 Psychology of Personality (3)
 Psychology 341 Abnormal Psychology (3)
 Psychology 350 Environmental Psychology (3)
 Psychology 351 Social Psychology (3)
 Psychology 361 Developmental Psychology (3)
 Psychology 362 Psychology of Aging (3)
 Sociology 133 Introduction to Gerontology (3)
 Sociology 361 Population Problems (3)
 Sociology 371 Urban Sociology (3)
 Sociology 407 Women in Contemporary Society (3)
 Sociology 431 Minority Group Relations (3)*
 Sociology 436 Social Stratification (3)*
 Sociology 450 Sociology of Sex Roles (3)
 Sociology 451 Sociology of the Family (3)
 Sociology 455 Medical Sociology (3)
 Sociology 456 Mental Illness (3)
 Sociology 465 Law and Society (3)
 Social Science 385 Philosophy of Social Sciences (3)
 Speech Comm 320 Inter Cultural Communication (3)*

B. Life-Long Learning (3 units minimum)

Courses in this section facilitate understanding of the human being as an integrated physiological, social, and psychological organism. They may also integrate major areas of earlier portions of the general education program (Sections II. through IV.A.2.). Choose from:

American Studies 450 Women in American Society (3)
 Anthropology 415 Culture & Nutrition (3)
 Anthropology 417 Life Quests (3)
 Anthropology 432 Women in Cross-Cultural Perspective (3)
 Biological Sci 306 Biology of Aging (3)
 Biological Sci 314 Human Issues in Genetics (1)
 Biological Sci 360 Biology of Human Sexuality (1)
 Chemistry 111 Nutrition & Drugs (3)
 Child Dev 312 Human Growth and Development (3)
 Chicano Studies 305 The Chicano Family (3)
 Comparative Lit 355 Images of Women in Literature (3)
 English 355 Images of Women in Literature (3)
 English 356 The Literature of Aging (3)
 Geography 357 Social Geography.: Perception & Behavior (3)
 Health Education 101 Personal Health (3)
 Health Education 301 Promotion of Optimal Health (3)
 Human Services 300 Character and Conflict (3)
 Music 350 Music in Our Society (3)
 Nursing 301 Promotion of Optimal Health (3)
 Philosophy 120 Philosophy of the Person (3)
 Philosophy 312 Business & Professional Ethics (3)
 Philosophy 324 Existential Group (3)
 Physical Education 350 Physical Activity & Life-long Well-being (3)
 Psychology 312 The Psych. of Human Sexual Behavior (3)
 Psychology 361 Developmental Psychology (3)
 Psychology 362 Psychology of Aging (3)
 Sociology 341 Social Interaction (3)
 Sociology 350 Social Relationships and Emotions (3)
 Sociology 451 Sociology of the Family (3)
 Sociology 460 Death and Dying (3)
 Speech Comm 345 Communications and Aging (3)

Teaching Credential Programs

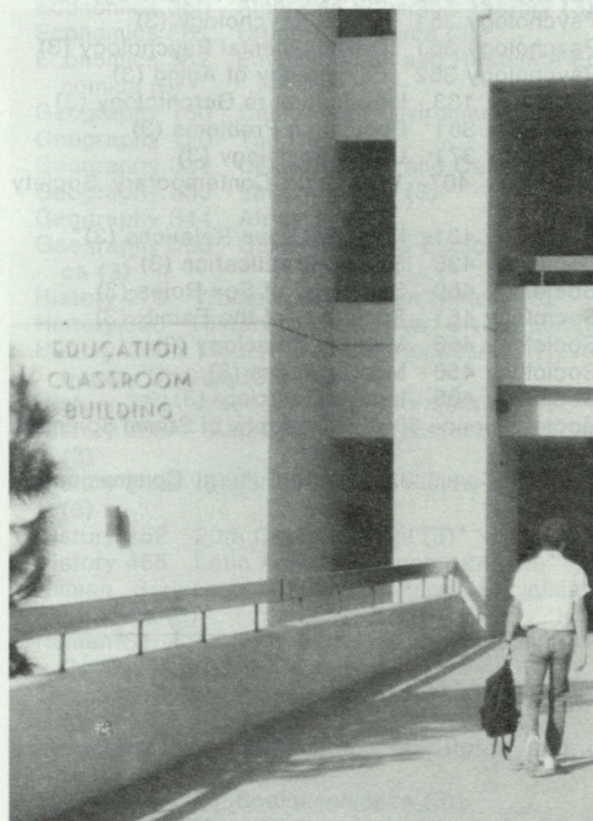
California State University, Fullerton offers a full range of State-approved credential programs leading to careers in education. From its earliest days to the present, this has been one of the chief missions of the university. Pursuing a teaching credential in California is a complicated matter because of the number of specific requirements that must be met. Credential requirements are established by the Legislature and enforced by the Commission on Teacher Credentialing (CTC). This commission also reviews and approves all credential preparation programs, such as those at the university. An academic major in education is not permitted in California, thus students seeking teaching credentials must do so in conjunction with, or after the completion of, a baccalaureate degree program in an academic area outside of education. CSUF offers programs leading to *basic teaching credentials*, *specialist credentials*, and *services credentials*. The specialist and services credentials, described briefly below, are more advanced programs designed to be taken in conjunction with graduate study.

In this section of the catalog information is presented regarding:

- A. Basic Credential Programs
- B. The Multiple Subject Credential and Waiver Program
- C. The Single Subject Credentials and Waiver Programs
- D. Supplementary Authorizations for the Basic Teaching Credentials
- E. Specialist and Services Credentials

A. Basic Credential Programs

In California there are two *basic* teaching credentials, the *Multiple Subjects Credential* and the *Single Subject Credential*. The *Multiple Subjects Credential* authorizes a person to teach in a classroom where many different subjects are taught by a single individual, such as in elementary schools. The *Single Subject Credential* authorizes a teacher to teach in a classroom where only one subject is taught, such as a classroom in departmentalized high schools and some junior high schools. Thus the person interested in elementary school teaching should pursue the program designed for the Multiple Subjects Credential, and the person interested in teaching a specific subject at the junior high or high school level



should pursue the program for the Single Subject Credential.

In California a person can earn first a *preliminary* and then a *clear* basic teaching credential. The requirements for the clear credential are built on those for the preliminary credential. The preliminary credential is the level that authorizes beginning teaching.

Minimum Requirements for a Preliminary Multiple or Single Subject Credential

Although it is possible to complete the minimum requirements for a preliminary basic teaching credential in four years, it generally takes a good student with accurate academic advising about four and a half years full time to complete all the requirements for a preliminary basic teaching credential and a baccalaureate degree. The minimum requirements for a preliminary basic credential include:

1. A baccalaureate degree in a field other than professional education from a regionally accredited college or university.
2. An approved program of professional preparation, including supervised student teaching. This two semester program is taken during the fourth and/or fifth year of study. Cal State Fullerton offers State approved professional preparation programs through the School of Human Development and Community Service. Further information about these programs, including admission and prerequisite requirements, is provided in this catalog under the Department of Elementary and Bilingual Education, and the Secondary Teacher Education Program.
3. Passage of the California Basic Education Skills Test (CBEST), a test of reading, writing, critical thinking and mathematics skills. CSUF is one of the State-approved testing centers for this examination as well as for other examinations used in the teacher credentialing process.
4. Demonstration of subject matter knowledge appropriate to the specific credential being authorized. This can be achieved either by passing a State-approved subject matter examination or by completing a State-approved examination *Waiver Program*. Cal State Fullerton offers Waiver Programs for the Multiple Subjects subject matter examination and for 14 Single Subject examination areas. These programs are described in more detail below.
5. Satisfactory completion of at least two semester units of work on the provisions and principles of the U.S. Constitution or passage of an examination on this area.
6. Demonstration of a knowledge of the various methods of teaching reading.

To help ensure that all credential requirements are met with a minimum of difficulty, it is essential that

people seek sound academic advising as soon as possible. The Office of Admissions to Teacher Education, located in Education Classroom 207, provides information on waiver program advising and specific credential requirements, details on procedures for admission to the professional program in teacher preparation, information on preprofessional prerequisites, and advice on a number of other important matters of concern to students interested in the possibility of becoming a teacher. Students are encouraged to seek the information offered by this Office at their earliest convenience.

B. The Multiple Subject Credential and Waiver Program

In California Professional Teacher Preparation is a two-semester program taken during the fourth and/or fifth year of college; there is no major in education. Since students will be devoting their first three years of work to completing general education, major and waiver program requirements, it is essential that students consider their selection of an academic major carefully. Most persons interested in earning a Multiple Subjects Credential at CSUF select child development, liberal studies or human services as an academic major. Persons interested in working as bilingual teachers by earning a Multiple Subjects Credential with a Bilingual Emphasis, might consider majoring in a foreign language. Majors in the social sciences, humanities or natural sciences can also be excellent backgrounds for careers in elementary school teaching. According to California law, any major (other than education) can be selected.

Transfer students and students interested in qualifying for a CSUF waiver program should seek a transcript evaluation from the Credential Preparation Center, Education Classroom 207.

A person seeking a Multiple Subjects Credential will also be required to demonstrate a broad general knowledge of the arts, humanities, social sciences, mathematics, language arts, and natural sciences. There are two ways to demonstrate that knowledge: one is by passing a State-approved examination, the other is by completing the CSUF State-approved *Multiple Subjects Waiver Program*.

A student evaluated under an earlier waiver program retains the option of being evaluated under subsequent waiver programs.

All students transferring to CSUF who are certified to have satisfied all or part of the campus general education program shall be considered to have satisfied the parallel requirement(s) in the waiver program.

Multiple Subjects Waiver

1. English (18 units)

Composition: (6 units)

English 101 Beginning College Writing (3)*

Any course approved by the University Writing Board as meeting the upper-division writing requirement (3)**

Grammar: Any of the following (3 units)

English 303 The Structure of Modern English (3)

Reading 201 Academic Reading (3)

Reading 202 Vocabulary Comprehension (3)

*Literature: Any of the following (3 units)**

English 110 Literature of the Western World from Ancient Through Medieval (3)*

English 111 Literature of the Western World Renaissance through 19th Century (3)

English 200 Introduction to Literature (3)*

English 311 Masters of British Literature to 1760 (3)*

English 312 Masters of British Lit from 1760 (3)*

English 321 American Literature to Whitman (3)*

English 322 American Literature from Twain to Moderns (3)*

*Speech: Any one of the following: (3 units)**

Speech Comm 100 Introduction to Human Communications (3)*

Speech Comm 102 Public Speaking (3)*

Theatre 110 Introduction to Oral Interpretation (3)*

Theatre 411 Oral Interpretation of Children's Literature (3)*

*Critical Thinking (3 units)**

Completion of the "Critical Thinking" requirement of the campus general education program (3)*

2. Mathematics and Science (24 units)

Math 303A, B Fundamental Concepts of Elementary Mathematics (6)

Completion of 12 units of course work selected from the "Mathematics and Natural Science" section of the campus general education program.

Two (6 units) from the following:

Science Ed 310 Physical Science Concepts (3)

Science Ed 453 Life Science Concepts (3)

Any 3 units from general education and/or upper-division courses in biology, chemistry, geological sciences, and/or physics (other than the units used above)

3. Social Science (24 units)

Government (3 units)

Completion of the "Government" requirement of the campus-general education program (3)*

American/U.S. History (3 units)

Completion of the "American History" section of the campus general education program (3)*

Completion of 3 units of coursework from "Introduction to Social Sciences" section of the General Education Program (3)

Child 390 Middle Childhood (3) †

Three of the following: (9 units)

Sociology 450 Sociology of Sex Roles (3)

Sociology 451 Sociology of the Family (3)

Sociology 453 Child in American Society (3)

Amer Studies 420 Childhood and Family in American Culture (3)

Child 312 Human Growth and Development (3)*

Child 385 Infancy and Early Childhood (3)

Child 386 Adolescence (3)

Hum Ser 380 Theories & Techniques of Counseling (3)

Psychology 311 Educational Psychology (3)

Psychology 361 Developmental Psychology (3)*

Geography 330 California Landscape (3)

Anthropology 450 Culture and Education (3)

One of the courses approved for "Cultural Diversity" requirement of the CSUF general education program (3)

4. Humanities/Fine Arts (18 units)

At least nine units selected from the following:

Art 380 Art and Child Development (3)

Dance 471 Creative Dance for Children (3)

Music 333 Music and Child Development (3)

Theater 402A Dramatic Activities for Children (3)

Theat 403A Theatre for Children (3)

Physical Ed 372 Movement and the Child (3)

English 433 Children's Literature (3)

English 434 Literature for Junior and Senior High School (3)

Physical Ed 142 Children's Games (1)

*Completion of "Arts and Humanities" requirement of the campus general education program (up to 9 units)**

The above waiver program has been designed for maximal compatibility with the campus general education program. Nevertheless, good academic advising and careful course selection each semester are essential if a person is to complete major requirements, waiver requirements and general education requirements with the least amount of difficulty.#

*Course work that can also be used to satisfy CSUF undergraduate general education baccalaureate requirements.

**Course work that can also be used to satisfy the CSUF upper-division writing requirement.

†Course work that is a required prerequisite to admission to the Professional Education Basic Credential Program.

#Nine units of upper-division course work satisfying general education requirements must be taken no earlier than the first semester of the junior year.

C. Single Subject Credentials and Waiver Programs

Although a person seeking a Single Subject Credential may complete any academic major, most people decide to complete the degree major closest to the subject field in which they wish to be authorized to teach. CSUF offers a Single Subject Credential program in each of the following 14 State-authorized subject fields:

- Art
- Business Education
- English (English, Speech, Theater)
- French
- German
- Government (Political Science)
- History
- Life Science (Biology)
- Mathematics
- Music
- Physical Education
- Physical Sciences (Chemistry, Geology and Physics)
- Social Sciences (Anthropology, American Studies, Economics, Geography, Chicano Studies, History, Afro-Ethnic Studies, Psychology and Sociology)
- Spanish

To demonstrate subject matter competence a person must either pass the appropriate State-approved examination, or complete a State-approved waiver program. These waiver programs generally coincide sufficiently with the degree major to make it possible to complete major requirements and waiver requirements using many of the same courses. But degree programs and waiver programs serve different purposes; taking one is not a guarantee that you will have satisfied the requirements of the other. Good advising and careful planning are crucial. Transfer students seeking a CSUF waiver should seek a transcript evaluation from the Credential Preparation Center, Education Classroom 207. The CSUF waiver programs for each of the Single Subject fields listed above are presented below:

SINGLE SUBJECT WAIVER: ART

Core Requirements in Subjects Commonly Taught (36 units)

- Art 103 Two-dimensional Design (3)
- Art 104 Three-dimensional Design (3)
- Art 106A Beginning Ceramics (3)
- Art 107A,B Beginning Drawing and Painting (6)
- Art 117 Life Drawing (3)
- Art 201A,B Art and Civilization (6)
- Art 205A Beginning Crafts (3)
- Art 207A Drawing and Painting (3)
- Art 310A Watercolor (3)
- Art 312 Art of the 20th Century 1900 to Present (3)

Breadth and Perspective Requirements (15 units)

Students select one of the following areas of emphasis

Drawing, Painting and General Art

- Art 207B Drawing and Painting (3)
- Art 347 Printmaking-Etching (3)
- Art 307A,B Advanced Drawing and Painting (6)
- Art 317 Life Studies: Draw, Paint and Sculpting (3)

Crafts and Ceramics

- Art 205B Beginning Crafts: Wood (3)
- Art 305A Advanced Crafts (3)
- Art 306A,B Advanced Ceramics (6)
- Art 315A Jewelry (3)

SINGLE SUBJECT WAIVER: BUSINESS EDUCATION

Core Requirements in Subjects Commonly Taught (30-33 units)

(All students must meet the following core requirements. In addition, each student must meet the requirements of *one* of the four specializations which are: accounting, marketing, economics, and office administration.)

Demonstration of Typewriting Proficiency

(Proficiency Exam: (1) five-minute timed writing; minimum score 40 words gross per minute with five errors maximum, and (2) demonstration of problem-solving ability: Setting up a business letter, tabulation problem and rough-draft material from unarranged copy and in mailable/usable form and (3) passing a written exam covering correct form and style (including punctuation, syllabication, and grammar) applicable to typewriting skill.)

Demonstration of Office Machines Proficiency

(Proficiency Exam: (1) Demonstration of ability to produce a complex business letter, containing tabulation, on a microcomputer or wordprocessor, in mailable form, and (2) ability to add columns of figures on a 10-key calculating machine using the touch system.)

Students pursuing a single subject waiver must take all of the following: (15 units)

- Econ 201 Principles of Microeconomics (3)**
- Econ 202 Principles of Macroeconomics (3)**
- Accounting 201A,B Elementary Accounting (6)
- Management 246 Business Law (3)

One of the following: (3 units)

- Manag Sci 263 Intro to Information Systems and Micro-Computer Applications (2) *and*
- Manag Sci 264 Intro to Computer Programming (2) *or*
- Manag Sci 265 Introduction to Information Systems and Computer Programming (3) *or*
- Computer Sci 112 Introduction to Computer Programming (3)

All of the following: (9 units)

- Business Admin 301 Business Writing (3)
- Finance 310 Personal Financial Management (3)
- Marketing 351 Principles of Marketing (3)

And one area of specialization: (3-6 units)

Accounting Specialization*

- Accounting 301A,B Intermediate Accounting (6)

Marketing Specialization*

Marketing 352 Principles of Retailing (3)
Marketing 370 Consumer Behavior (3)

Economics Specialization*

Econ 310 Intermediate Microeconomic Analysis (3)
Econ 320 Intermediate Macroeconomic Analysis (3)

Office Administration Specialization*

Demonstration of Shorthand Proficiency
(Proficiency Exam: Ability to take dictation at a minimum of 80 words per minute for three minutes and transcribe the material into mailable/usable form.)

Management 339 Managing Business Operations and Organizations (3)

Breadth and Perspective Requirements (15 units)

Students must take 15 units selected from the following:

Accounting 302 Cost Accounting (3)
Accounting 308 Concepts Fed Income Tax (3)
Accounting 401 Advanced Accounting (3)
Economics 310 Intermed Microecon (3)***
Economics 320 Intermed Macroecon (3)***
Management 344 Intro to Systems Concepts (3)
Finance 320 Business Finance (3)
Management 340 Organizational Behavior (3)
Marketing 352 Principles of Retailing (3)***
Philosophy 312 Bus/Professional Ethics (3)
Mathematics 135 Business Calculus (3)
Computer Sci 223F Workshop in Fortran-77 (2)
Manage Sci 270 File Concepts and Cobal Programming (3)
Management 339 Managing Bus Oper/Org (3)***
Manage Sci 361 Probability and Statistical Methods in Business and Economics (4)

*The concentrations for the business administration major in accounting, economics and marketing require a total of 18-20 units of in-depth course work in those areas.

**Economics 210 Principles of Economics (5) may be substituted for Econ 201 and 202. Students who have already completed Econ 100 and 200 may substitute this combination for Econ 201 and 202.

***These courses may not fulfill a portion of the breadth and perspective requirements if they are used to meet part of the core (specialization) requirements.

SINGLE SUBJECT WAIVER: ENGLISH (ENGLISH, THEATER, SPEECH)

Core Requirements in Subjects Commonly Taught (30 units)

Composition

English 101 Beginning College Writing (3)

One of the following:

English 301 Advanced College Writing (3)
Theatre 477B Senior Sem in Critical Techniques (3)
Speech Comm 300 Intro to Research in Speech Communications (3)

Linguistics

English 303 Structure of Modern English (3)

One of the following:

Linguistics 106 Linguistics Minority Dialects (3)
English 305 English Language in America (3)
English 490 History of English Language (3)

Literature

All of the following:

English 300 Analysis of Literary Forms (3)
English 311 Masters of British Literature to and 1760 (3)
English 312 Masters of British Lit from 1760 (3)
English 321 American Lit to Whitman (3)
English 322 American Lit from Twain to the Moderns (3)
English 334 Shakespeare (3)

Breadth and Perspective Requirements (15 units)

Students may select one of the following areas of emphasis:

Theatre: All of the following:

Theatre 200 Art of the Theatre (3)
Theatre 263 Acting (3)
Theatre 276A Stagecraft (3)
Theatre 370A Directing (3)
Theatre 402B Dramatic Activities for Children (3)

English Literature: Fifteen semester units of adviser-approved literature courses.

Public Speaking: Five courses from the following:

Speech Comm 102 Public Speaking (3)
Speech Comm 138 Forensics (3)
Speech Comm 200 Human Communication (3)
Speech Comm 324 Small Group Communication (3)
Speech Comm 332 Processes of Social Influence (3)
Speech Comm 334 Persuasive Speaking (3)

SINGLE SUBJECT WAIVER: FRENCH

Upper-Division Requirements in Subjects Commonly Taught (30 units)

Language (Select 6 units from the following)

French 300 French Conversation (3)
French 317 Advanced Composition and Grammar (3)
French 318 Advanced Composition and Grammar (3)

Culture (Select 6 units from the following)

French 315 Origins of Modern France (3)
French 325 Contemporary French Civilization (3)
French 407 French Film (3)

Linguistics (Select 6 units from the following)

French 385 Translation (3)
French 466 Introduction to French Linguistics (3)
French 500 Stylistics (3)

Literature (Select 6 units from the following)

French 375 Introduction to Literature (3)
French 415 French Classicism (3)
French 425 French Romanticism (3)
French 475ABCD Senior Seminar (3)
French 485 French Literature (3)

Electives: Six upper-division units of electives selected from courses listed above in consultation with an adviser based on candidate's background, interest and teaching plans.

SINGLE SUBJECT WAIVER: GERMAN

Upper-Division Requirement in Subjects Commonly Taught (30 units)

Language (Select 6 units from the following)

- German 300 German Conversation (3)
- German 317 Advanced Conversation and Composition (3)
- German 401 Advanced Conversation and Vocabulary (3)

Culture (Select 6 units from the following)

- German 315 Introduction to German Civilization (3)
- German 325 Current Trends in Culture of German-Speaking Peoples (3)
- German 482 German Film (3)

Linguistics (Select 6 units from the following)

- German 399 German Phonetics (3)
- German 466 Introduction to German Linguistics (3)
- German 500 Advanced Structure and Style (3)

Literature (Select 6 units from the following)

- German 375 Introduction to Literary Forms (3)
- German 430 German Literature and Culture to the Baroque (3)
- German 440 18th Century German Literature and Culture (3)
- German 450 19th Century German Literature and Culture (3)
- German 460 20th Century German Literature and Culture (3)
- German 485 Seminar in German Literature (3)

Electives: Six upper-division units of electives selected from courses listed above in consultation with an advisor based on candidate's background, interest and teaching plans.

SINGLE SUBJECT WAIVER: GOVERNMENT

Core Requirements in Subjects Commonly Taught (30 Semester Units)

- Polsc 100 American Government (3)
- Polsc 300 Contemporary Issues in California Government and Politics (3)
- Polsc 309 Intro to Metropolitan Politics (3)
- Polsc 310 American Political Behavior (3)
- Polsc 315 American Political Process (3)
- Polsc 320 Politics, Policy & Administration (3)
- Polsc 330 Comparative Political Analysis (3)
- Polsc 340 Political Philosophy (3)
- Polsc 350 World Politics (3)
- Polsc 375 Public Law (3)

Breadth and Perspective Requirements (15 Semester Units)

U.S. Government (6 units)

Two courses from the following:

- Polsc 311 Research Proseminar in American Political Behavior (3)

- Polsc 347 Political Theory and Political Practice (3)
- Polsc 407 Quantitative Methods in Political Science (3)
- Polsc 410 Political Parties (3)
- Polsc 413 Pressure Groups and Public Opinions (3)
- Polsc 414 The Legislative Process (3)
- Polsc 415 Power and Participation in America (3)
- Polsc 416 The American Presidency (3)
- Polsc 445 Political Learning & Socialization (3)
- Chic 460 The Chicano and Politics (3)
- Afro 335 History of Racism (3)

Law (3 units)

One of the following:

- Chic 360 Chicanos and the Law (3)
- Polsc 376 Research Proseminar in Public Law (3)
- Polsc 470 Judicial Process (3)
- Polsc 473 Introduction to Constitutional Law (3)
- Polsc 474 Seminar in Constitutional Law: Civil Rights and Civil Liberties (3)
- Polsc 475 Administrative Law (3)

Comparative Systems/International Politics (3 units)

One of the following:

- Polsc 335 Comparative Political Change (3)
- Polsc 351 Research Proseminar in International Politics (3)
- Polsc 425 Comparative Public Administration (3)
- Polsc 430 Government Politics of a selected Nation-State (3)
- Polsc 431 Government and Politics of a Selected Area (3)
- Polsc 446 Corruption, Ethics and Public Policy (3)
- Polsc 452 Foreign Policy of a Selected Country or Group of Countries (3)
- Polsc 455 Comparative Analysis of Foreign Politics (3)

Public Administration (3 units)

One of the following:

- Polsc 321 Research Proseminar in Politics, Policy and Administration (3)
- Polsc 421 Public Finance Administration (3)
- Polsc 422 Public Personnel Administration (3)
- Polsc 423 Regional Planning and Development (3)
- Polsc 424 Urban Planning and Development (3)
- Polsc 425 Comparative Public Administration (3)
- Polsc 426 Collective Bargaining in the Public Sector (3)
- Polsc 427 Current Issues in Urban & Metropolitan Policy (3)
- Polsc 429 Public Personnel Training (3)

SINGLE SUBJECT WAIVER: HISTORY

Core Requirements in Subjects Commonly Taught (30-33 units)

All of the following:

- History 110A Western Civilization to the 16th Century (3)
- History 110B Western Civilization Since the 16th Century (3)
- History 383 History of California (3)

History 426 Rise of Modern Europe (3)
 History 429 Europe since 1914 (3)
 North America and U.S.: take one from the following:
 History 180 Survey of American History (3)
 History 170A,B United States History (6)
 Amer Studies 201 Intro to American Studies (3)
 Latin America: take one from the following:
 History 350 History of Latin American Civilization (3)
 History 453 Modern Mexico (3)
 Asia: take one of the following—(3 to 6 units)
 History 360 Modern Asia (3)
 History 462A,B History of China (6)
 History 463A,B History of Japan (6)
 History 464A,B History of Southeast Asia (6)
 History 465A,B History of India (6)
 Africa and the Middle East: take one pair—(6 units)
 History 466A,B History of Islamic Civilizations (6)
 History 467 Middle East in the 19th Century (3)
 and History 468 Middle East in the 20th Century (3)
 History 458 Southern Africa in the 20th Century (3)
 and Afro 346 The African Experience (3)

Breadth and Depth Requirements (15 units)

Historical Methodology: (at least 3 units)
 History 300A Historical Thinking (3)
 Amer Studies 350 Seminar in Theory and Method of American Studies (3)
 History 490 Senior Research Seminar (3)
 Amer Studies 401 Proseminar in American Studies (3)
 U.S. and North American History: (at least 6 units)
 History/Amer Studies 386A American Social History 1750-1860 (3)
 History/Amer Studies 386B American Social History 1860-1930 (3)
 Amer Studies 301 The American Character (3)
 Amer Studies 345 The American Dream (3)
 Amer Studies 395 American West in Symbol and Myth (3)
 Amer Studies 416 So. California Culture: A Study of American Regionalism (3)
 American Studies 450 Women in U.S. History (3)
 Chicano 453 Modern Mexico (3)
 History 380 Canada, 1534-1967
 History 350 History of Latin American Civilization (3)—If not used to satisfy core requirements
 History 453 Modern Mexico (3)
 History 470 American Colonial Civilization (3)
 History 471 United States from Colony to Nation (3)
 History 472 Jeffersonian Themes in American Society, 1800-1861 (3)
 History 473 Democracy on Trial 1845-1877 (3)
 History 474 The United States 1876-1914 (3)
 History 475 America Comes of Age, 1914-1945 (3)
 History 476 United States Since 1945 (3)
 History 479 The Urbanization of American Life (3)
 History 485 U.S. Foreign Relations (3)
 History 486 United States Cultural History (3)

History 487 Hist of American Parties and Politics (3)
 Western Civilization and Modern Europe: (at least 6 units)
 History 341 Tudor-Stuart England (3)
 History 342 Modern England and Great Britain (3)
 History 401 European Intellectual History from 1500 to the Present (3)
 History 415A Classical Greece (3)
 History 415B Hellenistic Civilization (3)
 History 417A Roman Republic (3)
 History 417B Roman Empire (3)
 History 425A The Renaissance (3)
 History 425B The Reformation (3)
 History 432 Modern Germany from 18th Century (3)
 History 434A Russia to 1890 (3)
 History 434B The Russian Revolutions and the Soviet Regime (3)
 History 437 East Europe (3)
 SINGLE SUBJECT WAIVER: LIFE SCIENCE

Core Requirements in Subjects Commonly Taught (31 units)

All of the following:
 Biological Sci 141 Principles of Botany (2)
 Biological Sci 141L Principles of Botany Lab (2)
 Biological Sci 161 Principles of Zoology (2)
 Biological Sci 161L Principles of Zoology Lab (2)
 Biological Sci 302 General Microbiology (2)
 Biological Sci 302L General Microbiology Lab (2)
 Biological Sci 312 Genetics (3)
 Biological Sci 315 Cell and Molecular Biology (3)
 Biological Sci 316 Principles of Ecology (3)
 One of the following:
 Biological Sci 315L Cell and Molecular Biol Lab (2)
 Biological Sci 316L Principles of Ecology Lab (2)
 One of the following:
 Biological Sci 362 Mammalian Physiology (4)
 Biological Sci 410 Cell Physiology (4)
 Biological Sci 468 Comparative Animal Physiology (4)
 Biological Sci 444 Plant Physiology (4)
 One of the following:
 Biological Sci 419 Marine Ecology (3) and
 Biological Sci 419L Marine Ecology Lab (1)
 Biological Sci 446 Phycology (4)
 Biological Sci 461 Invertebrate Zoology (4)
 Biological Sci 475 Ichthyology (4)

Breadth and Perspective Requirements (27-30 units)

Chemistry 120A,B General Chemistry (10)
 Physics 211A,B and 211AL,BL Elementary Physics (8)
 One of the following:
 Chemistry 301A,B Organic Chemistry (6) and
 Chemistry 302 Organic Chemistry Lab (2), or
 Chemistry 303 Survey of Organic Chemistry (5)
 One of the following:
 Math 130A A Short course in Calculus (4)
 Math 150A Analytic Geometry and Calculus (4)

SINGLE SUBJECT WAIVER: MATHEMATICS

Unit Requirement (34 units)

Math 150A,B Analytic Geometry and Calculus (8)
Math 250A,B Intermediate Calculus (8)
Math 335 Mathematical Probability (3)
Math 380 History of Mathematics (3)
Math 401 Algebra and Probability for the
Secondary Teacher (3)
Math 402 Logic and Geometry for the Secondary
Teacher (3)

One of the following:

Math 435 Mathematical Statistics (3)
Math 438 Introduction to Stochastic Processes (3)

One of the following:

Computer Sci 112 Introduction to Computer
Programming (3)
Comp Sci 121 Programming Concepts (3)
Engineering 205 Digital Computation (3)

Closely Related Subjects Requirement (15)

Mathematics 302 Modern Algebra (3)
Mathematics 307 Applied Linear Algebra (3)

One of the following:

Computer Sci 131 Data Structures Concepts (3)
Computer Sci 231 File Systems Concepts (3)

Two of the following courses:

Math 350A Advanced Calculus (3)
Math 370 Mathematical Model Building (3)
Philosophy 368 First Course in Symbolic Logic (3)
Philosophy 369 Second Course in Symbolic
Logic (3)

SINGLE SUBJECT WAIVER: MUSIC

Core Requirements in Subjects Commonly Taught (30 units)

Music 111A,B Diatonic Harmony (6)
Music 211 Chromatic Harmony (3)
Music 251 Survey of Musical Literature (3)
Music 281B,P,S,W Orchestral Instruments (1)
Music 319 Form and Analysis (3)
Music 351A History and Literature of Music (Greek
through Renaissance) (3)
Music 351B History and Literature of Music
(Baroque and Classics) (3)
Music 351C History and Literature of Music
(Romantic to Present) (3)
Music 391A Choral Conducting (2)

Breadth and Perspective Requirements (15+ units)

One of the following: (2 units)

Music 320A 20th Century Techniques (2)
Music 320B 20th Century Techniques (2)

One of the following: (4 units)

Music 323A Orchestration (2)
and Music 324 Scoring for the Band (2)
Music 453A or 453B Choral Literature and
Interpretation (2)
and one of:
Music 457A Song Literature and Interpretation (2)
or Music 457B Song Literature and
Interpretation (2)

or Music 468A Vocal Pedagogy (2)
Music 381 Survey of Recreational Instruments (1)
and Music 435 Music in the Modern Classroom (3)

One of the following: (2 or 3 units)

Music 333 Music and Child Development (3)
Music 354 Survey of Public School Choral Music
Materials (2)
Music 444 Survey of Marching Band Materials (2)
Take at least five of the following: (5 units)
Music 361A Symphony Orchestra (1)
Music 361B University Choir (1)
Music 361C University Concert Band (1)
Music 361D Opera Theatre (1)
Music 361E University Singers (1)
Music 361F University Wind Ensemble (1)
Music 361M Men's Choir (1)
Music 361W Women's Choir (1)

One of the following: (2 units)

Music 391B Choral Conducting (2)
Music 392A Instrumental Conducting (2)

Performance Requirement:

Perform at level sufficient to be admitted to Music
371 on principal instrument (0-4)

Piano Proficiency Requirement:

Completion of Music 282B or satisfactory passage
of piano proficiency examination (0-4)

SINGLE SUBJECT WAIVER: PHYSICAL EDUCATION

Core Requirements in, or directly related to, Subjects Commonly Taught (30 units)

All of the following: (15 units)

Physical Ed 300 Principles of Movement (3)
Physical Ed 349 Measurement and Evaluation (3)
Physical Ed 352 Physiology of Exercise (3)
Physical Ed 364 Motor Development (3)
Physical Ed 371 Prin of Human Motor Learning (3)

Analysis of Sports: (4 units)

Physical Ed 303 Field Events (2)
Physical Ed 304 Swimming (2)
Physical Ed 305 Golf (2)
Physical Ed 306 Gymnastics (2)
Physical Ed 308 Soccer (2)
Physical Ed 309 Badminton/Racquetball (2)
Physical Ed 312 Tennis (2)
Physical Ed 316 Volleyball (2)
Physical Ed 319 Softball (2)

Techniques of Coaching: (2 units)

Physical Ed 328 Gymnastics (2)
Physical Ed 330 Softball (2)
Physical Ed 332 Tennis (2)
Physical Ed 334 Baseball (2)
Physical Ed 335 Football (2)
Physical Ed 337 Basketball (2)
Physical Ed 338 Volleyball (2)

Activities (9 units: at least one course in each of the
five commonly taught areas; at least six of the nine
units at the intermediate, advanced or intercolle-
giate level)

Dance

- Dance 101 Introduction to Dance (3)
- Dance 112 Beginning Classical Ballet (2)
- Dance 212 Intermediate Ballet (2)
- Dance 312 Advanced Classical Ballet (3)
- Dance 122A Beginning Modern Dance (2)
- Dance 222 Intermediate Modern Dance (3)
- Dance 323A Dance Composition (3)
- Dance 132 Beginning Jazz Dance (2)
- Dance 232 Intermediate Jazz Dance (3)
- Dance 332 Advanced Jazz Dance (3)
- Dance 142 Beginning Tap Dance (2)
- Dance 242 Intermediate Tap Dance (2)

Basic Movement

- Physical Ed 100 Physical Conditioning (1)
- Physical Ed 101 Athletic Conditioning (1)
- Physical Ed 102A Beginning Jogging (1)
- Physical Ed 102B Intermediate/Advanced Jogging (1)
- Physical Ed 104 Horseback Riding (1)
- Physical Ed 105 Cycling (1)
- Physical Ed 108 Roller Skating (1)
- Physical Ed 125 Rock Climbing (1)
- Physical Ed 144 Exercise Weight Control (1)
- Physical Ed 146 Body Building (1)
- Physical Ed 151A Beginning Aikido (1)
- Physical Ed 151B Intermediate Aikido (1)
- Physical Ed 152A Beginning Karate (1)
- Physical Ed 152B Intermediate Karate (1)
- Physical Ed 154 Self-Defense (1)
- Physical Ed 246A Basic Hatha Yoga (2)
- Physical Ed 246B Intermediate Hatha Yoga (2)

Sports and Games

- Physical Ed 117A Beginning Bowling (1)
- Physical Ed 117B Intermediate Bowling (1)
- Physical Ed 117C Advanced Bowling (1)
- Physical Ed 118A Beginning Archery (1)
- Physical Ed 118B Intermediate Archery (1)
- Physical Ed 118C Advanced Archery (1)
- Physical Ed 119A Beginning Golf (1)
- Physical Ed 119B Intermediate Golf (1)
- Physical Ed 119C Advanced Golf (1)
- Physical Ed 130A Beginning Badminton (1)
- Physical Ed 130B Intermediate Badminton (1)
- Physical Ed 131A Beginning Tennis (1)
- Physical Ed 131B Advanced/Beginning Tennis (1)
- Physical Ed 131C Intermediate Tennis (1)
- Physical Ed 131D Advanced Tennis (1)
- Physical Ed 132A Beginning Racquetball (1)
- Physical Ed 132B Intermediate Racquetball (1)
- Physical Ed 132C Advanced Racquetball (1)
- Physical Ed 133 Handball (1)
- Physical Ed 142 Children's Games (1)
- Physical Ed 147 Olympic Power Lifting (1)
- Physical Ed 150A Beginning Wrestling (1)
- Physical Ed 150B Intermediate Wrestling (1)
- Physical Ed 155A Beginning Fencing (1)
- Physical Ed 155B Intermediate Fencing (1)
- Physical Ed 160 Baseball (1)
- Physical Ed 161A Beginning Slow Pitch (1)
- Physical Ed 161B Intermediate Slow Pitch (1)
- Physical Ed 162 Fast Pitch Softball (1)

- Physical Ed 164A Beginning Volleyball (1)
- Physical Ed 164B Intermediate Volleyball (1)
- Physical Ed 164C Advanced Volleyball (1)
- Physical Ed 165A Beginning Soccer (1)
- Physical Ed 165B Intermediate Soccer (1)
- Physical Ed 166 Team Handball (1)
- Physical Ed 167A Beginning Basketball (1)
- Physical Ed 167B Intermediate Basketball (1)
- Physical Ed 167C Advanced Basketball (1)
- Physical Ed 171 Intercollegiate Golf (2)
- Physical Ed 172 Intercollegiate Cross Country (2)
- Physical Ed 174 Intercollegiate Track-Field (2)
- Physical Ed 175 Intercollegiate Tennis (2)
- Physical Ed 176 Intercollegiate Wrestling (2)
- Physical Ed 177 Intercollegiate Fencing (2)
- Physical Ed 178 Intercollegiate Basketball (2)
- Physical Ed 179 Intercollegiate Baseball (2)
- Physical Ed 180 Intercollegiate Soccer (2)
- Physical Ed 184 Intercollegiate Football (2)
- Physical Ed 185 Intercollegiate Volleyball (2)
- Physical Ed 186 Intercollegiate Softball (2)

Aquatics

- Physical Ed 110A Beginning Swimming (1)
- Physical Ed 110B Intermediate Swimming (1)
- Physical Ed 110C Advanced Swimming (1)
- Physical Ed 111 Life Saving (1)
- Physical Ed 112 Water Polo (1)
- Physical Ed 114 Skin Diving (1)
- Physical Ed 116 Springboard Diving (1)
- Physical Ed 122A Beginning Sailing (1)
- Physical Ed 122B Intermediate Sailing (1)
- Physical Ed 173 Intercollegiate Water Polo (2)
- Physical Ed 210 Water Safety Instructor (2)
- Physical Ed 214 Basic Scuba (2)
- Physical Ed 343 Intermediate Scuba (2)

Gymnastics

- Physical Ed 120A Beginning Gymnastics (1)
- Physical Ed 120B Intermediate Gymnastics (1)
- Physical Ed 120C Advanced Gymnastics (1)
- Physical Ed 170 Intercollegiate Gymnastics (2)
- Physical Ed 306 Gymnastics (2)

Depth and Perspective Requirements (15 units)

One of the following courses:

- Physical Ed 380 History of Physical Education (3)
- Physical Ed 382 Philosophical Perspectives (3)

One of the following courses:

- Physical Ed 381 Human Movement in Cultural Perspective (3)
- Physical Ed 384 Sport Sociology (3)

Three of the following courses:

- Physical Ed 340 Contemporary Movement Environments (3)
- Physical Ed 363 Developmental Adaptations of the Atypical (3)
- Physical Ed 365 Prevention and Care of Athletic Injuries (3)
- Physical Ed 372 Movement and the Child (3)
- Physical Ed 373 Movement Concepts (3)
- Physical Ed 383 Sport Psychology (3)

SINGLE SUBJECT WAIVER: PHYSICAL SCIENCE

Core Requirements in Subjects Commonly Taught (39-42 units)

Chemistry 120 A,B General Chemistry (10)

One of the following: (5-8 units)

Chemistry 301A,B Organic Chemistry (6)
and Chemistry 302 Organic Chemistry Lab (2),
or

Chemistry 303 Survey of Organic Chemistry (5)

All of the following: (24 units)

Physics 225A Fundamental Physics: Mechanics (3)

Physics 225B Fundamental Physics: Electricity and Magnetism (3)

Physics 225C Fundamental Physics: Modern Physics (3)

Physics 225AL,BL,CL Fundamental Physics Lab (1,1,1)

Geological Sci 101 Physical Geology (3)

Geological Sci 101L Physical Geology Lab (1)

Geological Sci 201 Earth History (4)

Physics 350 General Astronomy (4)

Breadth and Perspective Requirements (19 units)

Math 150A,B Analytic Geometry and Calculus (8)

One of the following:

Geological Sci 340 General Meteorology (3)

Chemistry 361A Intro to Physical Chemistry (3)

Chemistry 371A Physical Chemistry (3)

Physics 310 Thermodynamics, Kinetic Theory, and Statistical Physics (3)

Two of the following:

Biological Sci 101 (and 101L) Elements of Biology and Lab (4)

Biological Sci 141 (and 141L) Principles of Botany and Lab (4)

Biological Sci 161 (and 161L) Principles of Zoology and Lab (4)

SINGLE SUBJECT WAIVER: SOCIAL SCIENCES

Core Requirements in Subjects Commonly Taught (33-36 units)

One of the following courses: (3-6 units)

History 180 Survey of American History (3)

Amer Studies 201 Intro to American Studies (3)

History 170A,B United States History (6)

All of the following: (24 units)

Three units of History of California or California Government (3)

Six units of American Government (6)

Three units in Economics (3)

History 110A Western Civilization to 16th Century (3)

History 110B Western Civilization Since the 16th Century (3)

Anthropology 100 Non-Western cultures and the Western Tradition (3)

Geography 100 World Geography (3)

One of the following: (3 units)

Hum Ser/Afro 311 Intracultural Social Patterns (3)

Chicano 445 History of the Chicano (3)

One of the following: (3 units)

Amer Studies 301 The American Character (3)

Amer Studies 450 Women in American Society (3)

Breadth and Perspective Requirements (18 units)

One of the following courses:

Geography 330 California Landscape (3)

Geography 332 United States and Canada (3)

All of the following:

Three units of Sociology

Three units of Political Science

Three units of Psychology

Six units from any combination of the following:

Afro-Ethnic Studies

American Studies

Anthropology

Chicano Studies

Economics

Geography

History

Political Science

Psychology

Sociology

SINGLE SUBJECT WAIVER: SPANISH

Upper-Division Requirement in Subjects Commonly Taught (30 units)

Language (Select 6 units from the following)

Spanish 300 Spanish Conversation (3)

Spanish 317 Advanced Conversation and Composition (3)

Spanish 400 Spanish for Advanced Students (3)

Culture (Select 6 units from the following)

Spanish 315 Intro to Spanish Civilization (3)

Spanish 316 Introduction to Spanish-American Civilization (3)

Spanish 415 Contemporary Spanish Culture (3)

Spanish 416 Contemporary Spanish-American Culture (3)

Linguistics (Select 6 units from the following)

Spanish 466 Introduction to Spanish Linguistics (3)

Spanish 467 Dialectology (3)

Spanish 468 Spanish-English Contrastive Analysis (3)

Literature (Select 6 units from the following)

Spanish 375 Introduction to Literary Forms (3)

Spanish 430 Spanish Lit to Neoclassicism (3)

Spanish 441 Spanish American Literature (3)

Spanish 461 Spanish Literature since Neoclassicism (3)

Spanish 475 Topics in Spanish Peninsula Literature (3)

Spanish 485 Topics in Spanish American Literature (3)

Electives: Six upper-division units of electives selected from courses listed above in consultation with an adviser based on candidate's background, interest and teaching plans.

D. Supplementary Authorizations for the Basic Teaching Credentials

It is possible to expand the subject matter authorization a teaching credential initially carries to other subject fields. The State recognizes several subject areas that can be added to a Multiple Subjects Credential; thereby qualifying person to teach in departmentalized junior high classrooms (grades 6-9). CSUF offers 14 *Supplementary Authorizations for the Multiple Subject Credential* in:

- Art
- French
- Health Science
- Music
- Spanish
- Business
- General Science
- Life Science
- Physical Education
- Social Science
- English
- German
- Mathematics
- Physical Science

Supplementary Authorizations for the Single Subject Credential permit a person who holds a credential in one broad subject field to be also authorized to teach in another more specific subject area, one that might be quite different from the field of broader authorization. CSUF offers 37 supplementary authorizations for the single Subject Credential in:

- Accounting/Computer Literacy
- Animal Science (Zoology)
- Anthropology
- Biology
- Ceramics
- Chemistry
- Comparative Political Systems/International Relations
- Composition/Critical Thinking
- Computer Concepts and Applications
- Crafts (Arts)
- Dance
- Drama
- Drug Use and Abuse
- Earth Science (Geology)
- Economics
- Economic and Consumer Education
- Electronics
- Family Health
- Geography
- Graphic Arts
- Instrumental Music
- Jewelry
- Journalism
- Literature
- Marketing and Distribution
- Painting and Drawing
- Personal Health
- Photography
- Physics

- Plant Science
- Psychology
- Sociology
- Speech
- U.S. Government/Civics
- U.S. History/California History
- Vocal Music
- World History

Also, to permit the holder of a single subjects credential to teach certain subjects in grades 9 and below, CSUF offers eight supplementary authorizations in:

- General Science
- Introductory English
- Introductory French
- Introductory German
- Introductory Health Sciences
- Introductory Mathematics
- Introductory Social Science
- Introductory Spanish

Contact the Credential Preparation Center, Education Classroom 207, for details concerning course requirements for specific supplementary authorizations.

E. Specialist and Services Credentials

CSUF offers several State approved programs leading to more specialized credentials. Most of these programs build on the teaching experience that holders of a basic credential have achieved. Often these specialist or services credentials are oriented toward postbaccalaureate course work and coincide with Masters degree programs. Further information about specific requirements for each can be obtained under the appropriate departmental listing in this catalogue.

CSUF offers the following *Specialist Credential* programs:

1. *Gifted*, to teach in classrooms designed for the special needs of gifted and talented students. See Department of Special Education, School of Human Development and Community Service.
2. *Learning Handicapped*, to teach the learning handicapped including the behaviorally disordered and educationally retarded. See Department of Special Education, School of Human Development and Community Service.
3. *Reading Specialist*, to teach reading to students of diversified grade and ability levels and to assist all teachers in being better reading teachers. See Department of Reading, School of Human Development and Community Service.
4. *Resource Specialist* (Certificate of Competency), to serve as a resource specialist in programs serving special education students, their parents and their regular teachers. See Department of Special Education, School of Human Development and Community Service.
5. *Severely Handicapped*, to teach the severely-multiply-handicapped, severely emotionally dis-

turbed and autistic. See Department of Special Education, School of Human Development and Community Service.

In addition CSUF is currently seeking approval for a newly authorized credential, *Language Development Specialist*, to teach limited or non-English proficient students. See Department of Foreign Language and Literature, School of Humanities and Social Science.

CSUF offers the following Services Credential programs:

1. *Administrative Internship*, a field based internship program leading to a preliminary level administrative services credential. See Department of Educational Administration, School of Human Development and Community Service.
2. *Administrative Services (Preliminary Level)*, the first step of the new two-step administrative services credential structure, authorizing service as a school site administrator, principal or other administrative officer of a school district. See Department of Educational Administration, School of Human Development and Community Service.
3. *Administrative Services (Professional Level)*, the second step of the new two-step administrative

services credential structure. See Department of Educational Administration, School of Human Development and Community Service.

4. *Clinical Rehabilitation (Language, Speech and Hearing)*, to provide services to students with exceptional needs and/or neurophysical disorders in language, speech, and hearing. See Department of Speech Communication, School of Humanities and Social Sciences.
5. *Clinical Rehabilitation (Special Class Authorization)*, to provide services to students with severe disorders of language. See Department of Speech Communication, School of Humanities and Social Sciences.
6. *Pupil Personnel Services*, to provide counseling and testing services to students. See Department of Counseling, School of Human Development and Community Services.
7. *School Psychology*, to provide counseling and school psychologist services to students. See Department of Counseling, School of Human Development and Community Service.



Extended Education

**Building T 14
(714) 773-2611**

Extension Programs

The Extension program is designed for those who are unable to take university work in residence but who wish to pursue university-level study for various purposes, such as resuming an interrupted or incomplete education, augmenting professional or vocational abilities, or enhancing personal growth and fulfillment.

Extension offerings include regularly established university courses as well as non-credit seminars and conferences, special weekend programs and travel study programs. Workshops and courses designed to meet the needs of particular groups and agencies may be initiated at various times during the year. Any adult may enroll in an extension course provided the prerequisites of the course are met. An individual does not have to be enrolled in the university in order to take extension courses.

The maximum amount of extension credit which will be accepted toward a baccalaureate degree is 24 semester units. Nine semester units of extension credit may be applied toward a master's degree with appropriate approval. Extension credit may not be used to fulfill the minimum residence requirement for graduation.

Extension courses are offered during fall, spring, summer session and intersession.

Adjunct Enrollment

Many of the regular university courses offered to enrolled students are also open on a space-available basis to extension students through Adjunct Enrollment. Matriculated students may not enroll through this program. Contact the Office of Extended Education for further information.

Summer Session

The summer session program is designed for regularly enrolled students, either at California State University, Fullerton or another university, who wish to accelerate progress toward a degree or credential; prospective students who wish to begin course work while admission to the university is in process; and members of the community who wish to enroll in a

course or courses for professional advancement or personal enrichment. Summer session offerings consist of regular university courses and apply toward residence and graduation requirements. Students must satisfy all prerequisites for the course or courses in which they intend to register. The summer session curriculum consists of lower-division through graduate-level courses.

The summer session bulletin is available in March and may be obtained by writing or calling the Office of Extended Education. The bulletin contains course descriptions, special offerings, registration form and instructions. Registration may be completed by mail at specified times. Summer enrollment does not constitute admission to the university.

Intersession

Intersession is open to everyone—continuing and prospective students, community residents and visitors. Scheduled during January, the one-, two- and three-unit courses are primarily designed to meet the needs of students who wish to accelerate their academic progress.

The intersession offers extension courses as well as courses which earn resident credit and range from both lower- and upper-division credit courses to graduate-level offerings.

Certificate Programs

Certificate programs are designed for those who want formal recognition for completing a structured and rigorous course of study in a specific field, but who may not be interested in pursuing a university degree program. Certificates are awarded when participants complete the course requirements. The Office of Extended Education offers certificate programs in the following areas:

Production and Inventory Management
Gerontology

Community Programs

The Office of Extended Education sponsors various community educational outreach programs including the Continuing Learning Experience (CLE) program for retired and semi-retired persons. For a list of current activities contact the CLE office.

International Programs

The California State University (CSU) International Programs offers students the opportunity to continue their studies overseas for a full academic year while they remain enrolled at their home CSU campus. The International Programs' primary purposes are to enable selected students to gain a firsthand understanding of other areas of the world and to advance their knowledge and skills within specific academic disciplines in pursuit of established degree objectives.

A wide variety of academic majors may be accommodated by the 34 foreign universities cooperating with the International Programs in 16 countries around the globe. The affiliated institutions are: the University of Queensland (Australia); the University of São Paulo (Brazil); the Universities of the Province of Quebec (Canada); the University of Copenhagen (through Denmark's International Student Committee's Study Division); the University of Provence (France); the Universities of Heidelberg and Tübingen (Germany); the Hebrew University of Jerusalem (Israel); the University of Florence (Italy); Waseda University (Japan); the Ibero Americana University (Mexico); Massey University and Lincoln University College (New Zealand); the Catholic University of Lima (Peru); National Chengchi University (Republic of China / Taiwan); the Universities of Granada and Madrid (Spain); the University of Uppsala (Sweden); Bradford and Bristol Universities and Kingston Polytechnic (the United Kingdom). Information on academic course offerings available at these locations is in the International Programs Bulletin which may be obtained from the International Programs representative on campus.

Eligibility for application is limited to those students who will have upper-division or graduate standing at a CSU campus by the time of departure, who possess a cumulative grade-point average of 2.75 or 3.00, depending on the program, for all college level work completed at the time of application, and who will have completed required language or other preparatory study where applicable. Selection is competitive and is based on home campus recommendations and the applicant's academic record. Final selection is made by the Office of International Programs in consultation with a statewide faculty selection committee.

The International Programs supports all tuition and administrative costs overseas for each of its participants to the same extent that such funds would be expended to support similar costs in California. Students assume responsibility for all personal costs, such as transportation, room and board, and living expenses, as well as for home campus fees. Because they remain enrolled at their home CSU campus while studying overseas, International Programs students earn full resident credit for all academic work completed while abroad and remain eligible to

receive any form of financial aid (other than work-study) for which they can individually qualify.

Information and application materials may be obtained from the Office of International Education and Exchange or by writing to The California State University, International Programs, 400 Golden Shore, Long Beach, California 90802-4275. Applications for the 1988-89 academic year overseas must be submitted by February 1, 1988.

International Exchange Programs

California State University, Fullerton has direct institutional exchange programs with universities throughout the world. Such agreements allow for the exchange of faculty and students for purposes of teaching, study, research and for the promotion of cultural understanding and interaction.

Current programs link California State University, Fullerton with Fudan University, Shanghai; Northwest University, Xi'an, People's Republic of China; nine campuses of the University of Paris, France; and three campuses of the Autonomous University of Baja California.

CSUF students pay home campus fees plus their living, transportation and related expenses. They must maintain home campus full-time enrollment status in the exchange program. They thereby may qualify for any financial aid for which they normally would be eligible. Credit received while studying abroad is subject to CSUF departmental approval for determination of equivalency.

Information and application forms are available in the Office of Academic Programs, McCarthy Hall-129, and in the Office of International Education and Exchange, McCarthy Hall-79.

American Language Program

California State University, Fullerton welcomes international students who wish to perfect their English language skills. The American Language Program (ALP) course of study provides intensive practice in listening, speaking, reading, writing and study skills while promoting an understanding of U.S. culture and society. Classes are small, so students will receive individual attention which will help them achieve rapid fluency in English.

All entering ALP students must take a placement test. On the basis of the test results, students are placed in one of six academic levels. At the beginning and intermediate levels, students attend multi-skills classes for 24 hours per week. Additional hours are required for homework and practice in the Language Laboratory. Advanced level students are in a semi-intensive program. In addition to multi-skills

classes, they may take specialized classes such as English for Business, English for Science and Technology, or Test of English as a Foreign Language (TOEFL) preparation.

No university credit is given for ALP classes; however, qualified advanced students may take one or two classes for university credit through Extended Education with the consent of the program director. Students should expect regular homework assignments in all their classes. For further information, contact the Director of the American Language Program (714) 773-2909.

AIESEC

AIESEC, the French acronym for International Association of Students in Business and Economics, is an international student organization which works in cooperation with local corporations to bring business trainees from all parts of the world to Orange County and, therefore, earns credits for placement of CSUF students in the 61 other participating countries. Students can be engaged for periods from six weeks to eighteen months and gain invaluable business experiences in another culture. For further information call (714) 773-2266.

International Study Courses

Cal State Fullerton students under The California State University International Study Programs regis-

ter concurrently at Cal State Fullerton and at the host institution abroad, with credits assigned to the student which are equivalent to courses offered at Cal State Fullerton. Undergraduate students who discover appropriate study opportunities at the host Institution but no equivalent course at Cal State Fullerton may use Independent Study 499 and International Study 292 or 492. Graduate students may use Independent Graduate Research 599 and International Study 592.

292 Projects in Study Abroad (Subject): (1-6 lower-division units)

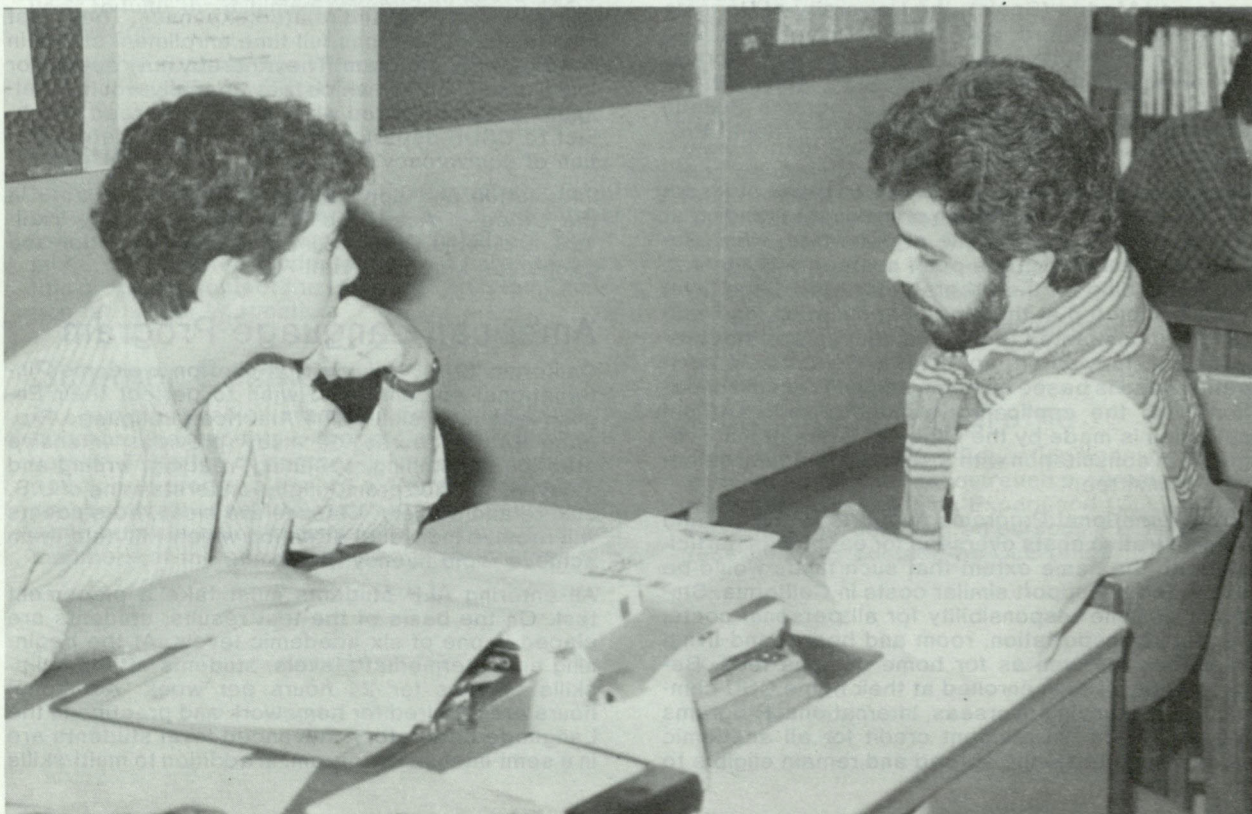
Open to students enrolled in California State University International Programs. Study undertaken in a university abroad under the auspices of The California State University.

492 Projects in Study Abroad (Subject): (1-3 upper-division units)

Open to students enrolled in California State University International Programs. Study undertaken in a university abroad under the auspices of The California State University.

592 Projects in Study Abroad (Subject): (1-3 graduate units)

Open to students enrolled in California State University International Programs. Study undertaken in a university abroad under the auspices of The California State University.



Special Major Program

From the total curriculum of the university, students may wish to plan a specially designed program of study that does not duplicate significantly any existing major or concentration. The special major provides opportunities for selected students to pursue individualized programs of study leading to a degree when legitimate academic and professional goals can be satisfied by a judicious selection of courses from two or more fields, and when these aims cannot be satisfied by the authorized standard degree majors or double majors that are available on the campus (e.g., liberal studies, social sciences). This major, designed for exceptional cases of individual students only, provides an opportunity to develop concentration or specializations outside the framework of existing majors. *(It is not intended as a means of bypassing normal graduation requirements or as a means by which students may graduate who fail to complete the degree major in which they are enrolled.)*

B.A. Special Major

Students desiring to work for a bachelor's degree with a special major should consult with the Office of Academic Advisement.

1. Entrance to the special major program is normally at the beginning of the junior year (60 units remaining for graduation).
2. The minimum requirement for the major is 48 units. A minimum of 36 upper-division units must be included in the major.
3. Although students may include on their study plans course work in progress and a maximum of 12 units of course work completed prior to the time of filing, approval of these courses is not automatic.
4. No more than six units of 499 (Independent Study) and/or internship course work may be included in the major.
5. Neither lower- nor upper-division courses applied to general education breadth requirements will be applicable toward the major.
6. At least three units of appropriate course work in methodology shall be included in the student's study plan. Where appropriate this requirement may be waived by the University Curriculum Committee.
7. All courses in the major must be taken under

Grade Option 1. A GPA of 3.0 in the major is required for graduation.

8. Prior to taking any substitute course work a petition for change of the study plan must be approved by the student's adviser and the University Curriculum Committee.
9. A senior thesis shall be written by the student in this program during the semester preceding graduation. This thesis should show scholarly evidence of the merit in the student's choice of an interdisciplinary program. This paper shall be written under the direction of the student's special major adviser and approved by the faculty designated by the departments represented on the student's study plan.

M.A. Special Major

A graduate student desiring to work for a master's degree with a special major should consult with the Office of Graduate Affairs and fill out an initial request form available at that office.

1. Entrance to the special major program requires a grade-point average (GPA) of 3.0 in the undergraduate major and a GPA of 3.0 in the last 60 units of course work.
2. The minimum requirement of units in the special major program is 30 units of which at least half must be graduate courses (500 level).
3. Although students may include on their proposed study plan course work in progress or completed prior to the time of filing, approval of these courses is not automatic. No more than nine units of course work taken prior to classified standing can be approved on the program.
4. The program may contain no more than six units of Independent Study, Project or Thesis.
5. All courses on the study plan must be taken under Grade Option 1. A GPA of 3.0 is required on all work on the study plan.
6. Prior to taking any substitute course work, a petition for change of the study plan must be approved by the student's graduate adviser and graduate committee.
7. A Thesis or Project shall be required for the completion of the program. The completed Thesis will be filed with the Library; whereas the Project shall be filed with the Office of Graduate Affairs.

Curricula Information

Course Descriptions

Course descriptions briefly describe the content or subject matter to be covered and provide additional information on units of credit, the level of instruction (see course numbering code), prerequisites and the type of course (lecture, laboratory, activity, seminar and individually supervised work).

Course Numbering Code

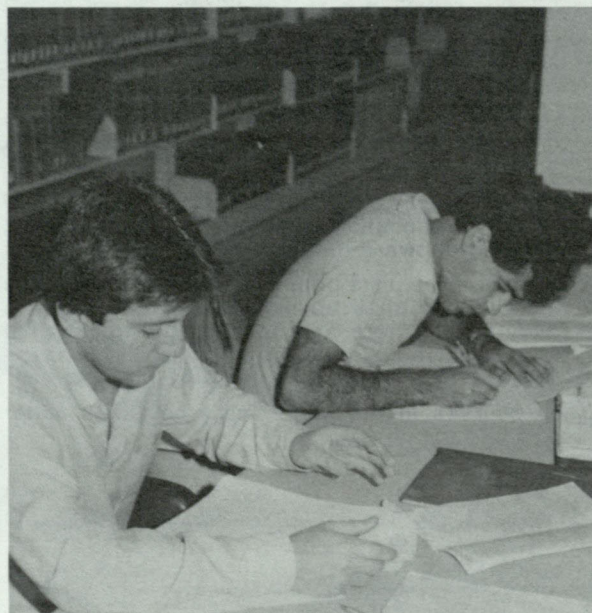
The first number in each course designation is intended to indicate the level of complexity of the course. In addition, the first number also is a rough index of the student's year of study at the university. The following are guidelines for course numbering.

001-099 Developmental or remedial level course work is pre-college in nature. It may not be counted toward a degree objective.

100-199 First year or freshman level course work is introductory in nature. Such courses may provide the fundamental or essential elements or qualities important to a specific discipline. Emphasis in many first year courses may be on the development of preliminary skills. These courses are usually designed without prerequisites and may be characterized as emphasizing breadth rather than depth of instruction.

200-299 Second year or sophomore level course work may include preliminary history or survey-type courses or intermediate skill development. Although there is no clear distinction made between lower division courses listed at the 100 or 200 level, there is an inherent assumption that students in the second year of study have acquired preliminary skills appropriate to university level work.

300-399 Third year or junior level course work is likely to emphasize specialization for majors in their disciplines. Work at this level is expected to be more challenging than lower division work. Usually, specific prerequisites are used to indicate the necessary competencies required for study at this level. The "core" courses of many disciplines are offered at this level and provide the prerequisites necessary to senior level study. Many disciplines use 300 level courses to focus on areas of speciality or emphasis within the disciplines. These courses do not give graduate credit unless included on an approved graduate study plan for a specific graduate student.



400-499 Fourth year or senior level course work is intended to provide depth of understanding or special focus appropriate to majors and generally requires prerequisite work. The student is expected to be able to theorize and/or practice at a professional level of competence. Students enrolled in 400 level course work are assumed to have advanced skills in writing proficiency. Courses at the 400 level are sufficiently sophisticated for inclusion on graduate study plans.

500-599 Fifth year university study is for graduate students who are enrolled in advanced degree programs. The courses of study are advanced and specialized in nature and require substantial undergraduate preparation. Independent initiative is expected in the theoretical, practical, critical, and analytical exploration of specialized topics. An essential feature of graduate study is the facilitation of independent decision-making, invention of theoretical constructs, application of research processes, and the development of original creations.

700-701 Course numbers for graduate and postbaccalaureate students (including those seeking a credential) to maintain continuous enrollment during a particular semester, and who are not enrolled in regular courses. These numbers do not represent courses and do not therefore grant credit.

900-999 Courses are specifically designed for professional groups seeking vocational improvement or career advancement. Credit for these courses does not apply to undergraduate or graduate degrees or credentials at the university.

An honors course shall use the letter H. A laboratory course which accompanies another course should use the letter L.

A controlled entry course is one which has enrollment requirements in addition to any prerequisite courses. Additional requirements include prior approval of the instructor, special academic advisement, a qualifying exam, a placement test, an audition, a teaching credential, or similar special qualifications.

Special Course Numbers

For uniformity, certain types of courses have been listed by all departments and schools with the same numbers: 499 and 599 are used respectively for undergraduate and graduate "independent study"; 196 or 496 for "student-to-student tutorials"; 597 for a graduate "project"; and 598 for a graduate "thesis."

Explanation of Course Notations

Certain notations are uniformly used in the course descriptions in this catalog.

1. The figure in parentheses following the course title indicates the number of semester units for the course. Courses offered for varying units are indicated as (1-3) or (3-6).
2. A course listing such as Afro-Ethnic Studies 108 (3) (Same as Linguistics 108) indicates that a student taking the course may choose to count it in either of those two disciplines.
3. A notation such as (Formerly 433) following the course title and the number of units indicates the same course previously was numbered 433.

Student-to-Student Tutorials

The "student-to-student tutorial" provides a formal way to encourage students to learn through teaching. It also provides tutoring to all students who need and want tutorial assistance.

In those departments which choose to offer such courses, the courses are numbered 196 or 496 and carry one to three units of credit. The prerequisites include a grade-point average of at least 3.0 and/or consent of the instructor. The tutor and his/her tutee or tutees will work in mutually advantageous ways by allowing all involved to delve more carefully and thoroughly into the materials presented in this specific course. One to three students may be tutored by the tutor unless the instructor decides that special circumstances warrant increasing the usual maximum of three tutees. Three hours of work per week are expected for each semester unit of credit, and this work may include, apart from contact hours with tutees, such other activities as: tutorial preparations; consulting with instructors; reporting, analysis and evaluation of the tutorial experiences; and participation in an all-university orientation and evaluation program for tutors. A maximum of three units may be taken each semester. No more than three units of any combination of tutorial courses (196 or 496) may count toward an undergraduate degree program. The course must be taken as an elective and not counted toward general education, major or minor requirements. The course can be taken on a credit/no credit basis by the tutor. Requests for tutors must be initiated by tutees and can be initiated up until the official university census date. Tutors electing to respond to such requests will receive credits at the end of the semester and can register in the course until the official university census date. Both tutors and tutees must submit written reports, analyses and evaluations of their shared tutorial experience to the instructor, and both must participate in an all-university orientation program as well as in any conference or critique that the instructor of the course may require.

Further information can be obtained from the department in which the student is interested in a "student-to-student tutorial."

Independent Study

Under the independent study program, the student may pursue topics or problems of special interest beyond the scope of a regular course under the supervision of a faculty adviser. The work is of a research or creative nature, and normally culminates in a paper, project, comprehensive examination, or performance. Before registering, the student must get his topic approved by the instructor who will be supervising independent study and by the department chair.

A student may take no more than six units of independent study at the undergraduate level (299 and 499 numbered courses) in a given semester. No more than nine units of independent study may be applied toward completion of the baccalaureate degree. A graduate student may apply no more than six units of independent study (499 or 599 numbered courses) toward completion of master's degree, unless written approval is obtained from the appropriate school dean.

Cross-Disciplinary University Programs

A joint degree program is an endeavor involving two or more existing academic departments which need not be within the same school. Such programs are administered by program councils composed of representatives elected by participating departments. The joint degree programs are housed in administration units as follows:

School of Human Development and Community Service

Child Development, B.S.

Human Services, B.S.

School of Humanities and Social Sciences

Environmental Studies, M.S.

Latin American Studies, B.A.

Liberal Studies, B.A.

Russian and East European Area Studies, B.A.

Social Sciences, M.A.

The degree descriptions are located within the appropriate school section of this catalog.

Bilingual / Cross-Cultural Studies

Students may pursue a course of study with a bilingual/cross-cultural emphasis.

Complete course listings and details are available from the Department of Foreign Languages and Literatures, the Department of Chicano Studies, Division of Teacher Education and Educational Opportunity Program advisers.

Library Courses

201 Introduction to Library Resources (1)

A practical introduction to library materials and methods enabling undergraduate students to locate information for course-related, as well as independent study and research.

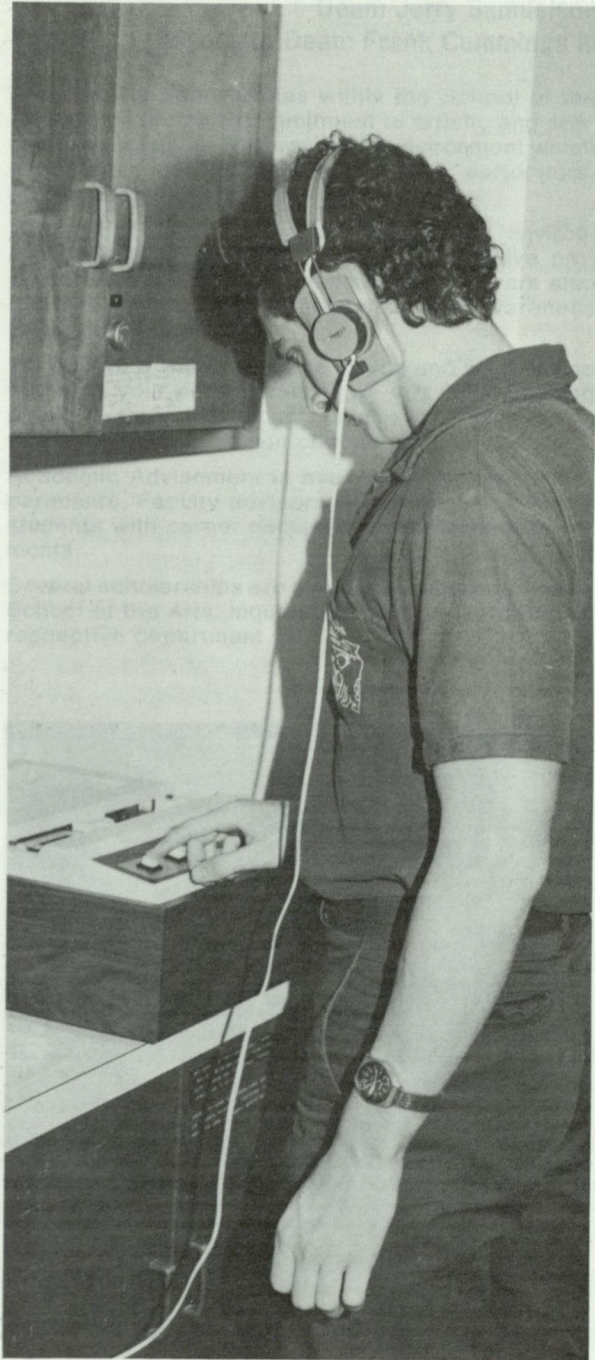
200 Elements of Bibliographic Investigation (3)

A survey of important information sources in various subject fields and the application of research methods which will enable students to become effective library users. Particular attention is given to the assembling of material for term papers and reports, including the preparation of bibliographies.

302 Library Research Methods for Specific Majors (1)

Library research methodology and introduction to library resources in special subject areas such as business, education and science.

School of Curricula



School of the Arts

Dean: Jerry Samuelson

Associate Dean: Frank Cummings III

The learning opportunities within the School of the Arts are based on a commitment to artistic and academic excellence. We provide an environment which encourages individual achievement for performers, artists and scholars.

Within the broader university liberal arts environment, the School of the Arts offers intensive programs in Art, Music, Theatre and Dance. We are also committed to the enhancement of artistic awareness of all students.

We extend a warm welcome to you and we promise that with your perseverance, we will do everything possible to further your goals and objectives in whatever field of art you choose.

Academic Advisement is available through the departments. Faculty advisors are available to assist students with career decisions and degree requirements.

Several scholarships are available to students in the School of the Arts. Inquiries should be made to the respective department offices.



Programs Offered

Art, Bachelor of Arts

- Art History
- Studio
- Teaching

Art, Bachelor of Fine Arts

- Drawing and Painting
- Printmaking
- Sculpture
- Crafts
- Ceramics
- Graphic Design
- Illustration
- Environmental Design
- Creative Photography

Minor in Art

Art, Master of Arts

- Drawing and Painting
- Sculpture
- Crafts (including Ceramics, Glass, Fibers, Wood, Jewelry/Metalsmithing).
- Design (including Environmental Design, Graphic Design, Illustration, Exhibition Design, Creative Photography).
- Art History

Art, Master of Fine Arts

- Drawing, Painting and Printmaking
- Sculpture
- Ceramics
- Crafts
- Design
- Creative Photography

Certificate in Museum Studies

Music, Bachelor of Arts

- Liberal Arts
- Music Education
- Music History and Theory

Music, Bachelor of Music

- Commercial Music
- Composition
- Instrumental
- Keyboard
- Voice
- Accompanying

Minor in Music

Music, Master of Arts

- Music History and Literature
- Music Education

Music, Master of Music

- Performance
- Theory-Composition

Theatre Arts, Bachelor of Arts

- History and Theory
- Production/Performance
- Playwriting
- Oral Interpretation
- Acting
- Television
- Directing
- Technical Production/Design
- Dance
- Musical Theatre
- Teaching

Theatre Arts, Master of Arts

- Acting and Directing
- Dramatic Literature and Criticism
- Oral Interpretation
- Playwriting
- Television
- Technical Theatre
- Theatre for Children
- Theatre History

Theatre Arts, Master of Fine Arts

- Technical Theatre and Design
- Acting
- Directing



Department of Art

Department Chair: Alvin Ching
Department Office: Visual Arts 102

Programs Offered

Bachelor of Arts in Art

Art History
Studio
Teaching

Bachelor of Fine Arts in Art

Drawing and Painting
Printmaking
Sculpture
Crafts
Ceramics
Graphic Design
Illustration
Environmental Design
Creative Photography

Minor in Art

Master of Arts in Art

Drawing and Painting
Sculpture
Crafts
Design
Art History

Master of Fine Arts in Art

Drawing, Painting, and Printmaking
Sculpture
Ceramics
Crafts
Design
Creative Photography

Certificate in Museum Studies

Faculty

Robert Caddes, Ruth Capelle, John Carter,
Alvin Ching, Eileen Cowin, Frank Cummings III,
Darryl Curran, Robert Ewing, Dextra Frankel,
Maurice Gray, Raymond Hein, Thomas Holste,
Dorian Hunter, George James, Jimmie Jenkins,
Lawrence Johnson, G. Ray Kerci, u,
Donald Lagerberg, Clinton MacKenzie,
Robert Partin, Theodore Phillips, Albert Porter,
Leo Robinson, Jerry Rothman, Jerry Samuelson,
V. Joachim Smith, Jon Stokesbary, Vincent Suez

INTRODUCTION

The Department of Art offers programs which include the scholarly fields of art history, theory, analysis and criticism; the studio fields of drawing and painting, printmaking, sculpture, crafts (including fibers, jewelry, wood and metal), ceramics (including glass), graphic design, illustration, environmental design, exhibition design, and creative photography; and the single subject teaching field of art education.

BACHELOR OF ARTS IN ART

The curricular plans have been developed to meet the individual needs and interests of students working for the bachelor of arts with a major in art.

The general objectives of the B.A. degree program are to provide a comprehensive learning environment which contributes technically and conceptually to the development of the art scholar, the creative artist and the art teacher. More specifically, the B.A. degree program provides opportunities for students to: (1) develop a knowledge and understanding of fundamental visual experience and concepts basic to many forms and fields of art; (2) develop a critical appreciation of historical and contemporary art forms as they relate to individual and social needs and values; (3) express creatively one's personal experience and thought with skill and clarity in visual terms; and (4) to develop those understandings and skills necessary to pursue graduate studies in visual arts, or to teach art in the schools.

Plan I provides for an emphasis in the area of art history, theory, and appreciation and is particularly recommended for those students who wish to pursue graduate studies in art history or museology.

Plan II is a liberal curricula that provides a broad education in the visual arts to students seeking an individualized, flexible course of study with open-ended goals.

Plan III is for students who wish to meet the requirements for single subject instruction (Ryan Act) for teaching art in grades K-12.

In addition to the requirements listed below for the major, students must meet the other university requirements for a bachelor of arts degree. Students following Plan III must also meet specific requirements for the desired teaching credential.

All art majors must take Art 300, Writing in the Visual Arts, and pass the university's Examination in Writing Proficiency (EWP) after achieving junior standing (60 units). Testing dates for the EWP are available from the Testing Center or the Academic Advisement Center.

To qualify for a baccalaureate degree with a major in art, students must have a 2.0 or better grade-point average in all courses required for the degree. No credit toward the major will be allowed for specific major courses in which a grade of D is obtained.

Plan I: Art History

Preparation for the major (lower division—21 units)

Art 201A,B Art and Civilization	6
Lower division studio courses	6

Approved electives in art, American studies, anthropology, foreign languages, history, literature, music, philosophy or theatre . . . 9

The major (upper division—33 units)

Upper-division art history selected from the

following nine courses: 21

301 Ancient Art	
302 Medieval Art	
311 Foundations of Modern Art	
312 Art of the 20th Century	
431 Renaissance Art	
432 Baroque and Rococo Art	
460B Pre-Columbian Art	
461A American Art: Colonial-1900	
461B American Art: 20th Century	

481 Seminar in Art History 3

300 Writing in the Visual Arts 3

Approved upper-division electives 6

Total 54

Plan II: Studio

Preparation for the major (lower division—27 units)

103 Two Dimensional Design	3
104 Three Dimensional Design	3
107A,B Beginning Drawing and Painting	6
117 Life Drawing	3
201A,B Art and Civilization	6

Lower-division art electives 6

The major (upper division—27 units)

Upper-division art history and appreciation	6
Upper-division studio area emphasis	12
Upper-division art electives	6
300 Writing in the Visual Arts*	3
Total	54

* Emphases may include: drawing and painting, printmaking, sculpture, crafts, ceramics, graphic design, illustration, environmental design, creative photography, exhibition design.

Plan III: Teaching

Single Subject Instruction—Ryan Act

(Qualifies for Teaching Art in Grades K-12)

Preparation for the major (lower division—30 units)

103 Two-Dimensional Design	3
104 Three-Dimensional Design	3
106A Beginning Ceramics	3
107A,B Beginning Drawing and Painting	6
117 Life Drawing	3
201A,B Art and Civilization	6
205A Beginning Crafts	3
207A Drawing/Painting	3

Major requirements (upper division-24 units)

Select Drawing/Painting or Crafts:

Drawing and Painting:

300 Writing in the Visual Arts	3
307A,B Drawing and Painting	6
310A Watercolor	3
317A Life Studies, Drawing and Painting	3
347A Printmaking-Etching	3
312 Art of the 20th Century	3
441A Media Exploration for Teaching Art	3

Crafts:

300 Writing in the Visual Arts	3
305A Advanced Crafts	3
306A,B Advanced Ceramics	6
310A Watercolor	3
315A Jewelry	3
312 Art of the 20th Century	3
441A Media Exploration for Teaching Art	3

Professional Preparation (24-27 units)

Art Ed 442 Teaching Art in the Secondary School	3
Education course work	9-12
Student teaching (one semester full time)	12

Program Requirements:

1. Be advised by a faculty adviser in art education assigned by the art department chair.
2. Fulfill credential requirements listed in the catalog within the School of Human Development and Community Service for the Ryan Act curriculum.
3. Meet the requirements listed under Plan III.
4. Complete the major requirements prior to enrolling in the teacher education program.
5. Be admitted to teacher education through the School of Human Development and Community Service prior to enrollment in Art Ed 442, professional education courses and student teaching.
6. Be accepted for teacher education and student teaching based on candidate quotas, portfolio review, and evidence of success in completed university course work.
7. Be recommended by the faculty adviser in art education.
8. Complete Secondary Education 310 and Child Development 386 or equivalents.
9. Pass C-BEST exam prior to admission to Teacher Education.
10. Have a G.P.A. of 2.89 overall, 3.0 in major.

Credential Information

Upon completion of the above program and the bachelor of arts degree, the student is eligible for a partial credential, which meets state requirements for teaching art in grades K-12. Within the specified period of time from the beginning of a teaching assignment, 30 units of course work must be completed at an accredited college or university to qualify for a clear credential. Credentials are issued from the institution where this requirement has been completed.

Multiple Subject Instruction—Ryan Act

The following three courses are recommended for all students intending to teach in the elementary schools in multiple subject classrooms.

- Art 380 Art and Child Development (3)
- Music 333 Music and Child Development (3)
- Theatre 402 Dramatic Activities for Children (3)

BACHELOR OF FINE ARTS IN ART

The Bachelor of Fine Arts degree is a professional program providing directed studies in nine studio concentrations within the visual arts. The program is

designed for students seeking in-depth preparation for specialized goals selected from the following areas: drawing and painting; printmaking; sculpture; crafts; ceramics; graphic design; illustration; environmental design; or creative photography.

Admission Requirements

All entering students must apply to the B.A. (Bachelor of Arts) in Art program for their first semester of residence. After completing a minimum of 13 lower-division preparation units with a 3.0 minimum grade-point average, students may contact the Art Department to change their objective to the B.F.A. in Art program.

Students who transfer from community colleges or other universities must also apply to the B.A. in Art program. They may change their objective to the B.F.A. in Art program during the first semester after an evaluation and approval of studio courses taken at the other institutions has been completed.

All students must achieve a 3.0 grade-point average in studio courses.

Bachelor of Fine Arts Requirements

The Bachelor of Fine Arts degree program requires a minimum of 70 units in art, with 28 lower-division units of preparation and 42 upper-division units, including 24 units in an area of concentration, nine units of art history, three units of writing in art, and six units of art electives. In addition to the minimum 70 unit requirement for the B.F.A. degree, students must meet the other university requirements for a bachelor's degree (see the university Catalog and Class Schedule).

To qualify for a baccalaureate with a major in art, students must have a 2.0 or better grade-point average in all courses required for the degree. No credit toward the major will be allowed for art courses in which a grade of D is obtained.

Drawing and Painting	Units
<i>Preparation (lower division-28 units)</i>	
103 Two-Dimensional Design	3
104 Three-Dimensional Design	3
107A,B Beginning Drawing and Painting	6
117 Life Drawing	4
201A,B Art and Civilization	6
207A,B Drawing and Painting	6
<i>Concentration (upper division—42 units)</i>	
307A,B Drawing and Painting	6
317A,B Life Studies, Drawing and Painting	6
487B Special Studies, Life Drawing	3
487A Special Studies, Painting	3
Upper division drawing and painting options from 487A,BS and/or C	6
300 Writing in the Visual Arts*	3
Upper division art history	9
Upper-division art electives	6

Printmaking

<i>Preparation (lower division-28 units)</i>	
103 Two-Dimensional Design	3
104 Three-Dimensional Design	3
107A, B Beginning Drawing and Painting	6
117 Life Drawing	4

201A, B Art and Civilization	6	Concentration (upper division-42 units)	
207A Drawing and Painting	3	306A,B Advanced Ceramics	6
247 Beginning Printmaking	3	317A,B Life Studies, Drawing and Painting	6
Concentration (upper division—42 units)		326A,B Ceramic Sculpture	
307A Drawing and Painting	3	or 424A,B Glass Forming	6
317A, B Life Studies, Drawing and Painting	6	484A or 484B Special Studies	6
338A Creative Photography	3	300 Writing in the Visual Arts*	3
347A, B Printmaking-Etching, Lithography	6	Upper-division art history	9
487D Special Studies, Printmaking	6	Upper-division art electives	6
300 Writing in the Visual Arts*	3		
Upper-division art history	9	Graphic Design	
Upper-division art electives	6	Preparation (lower division-28 units)	
Sculpture		103 Two-Dimensional Design	3
Preparation (lower division—28 units)		104 Three-Dimensional Design	3
103 Two-Dimensional Design	3	107A,B Beginning Drawing and Painting	6
104 Three-Dimensional Design	3	117 Life Drawing	4
107A, B Beginning Drawing and Painting	6	201A,B Art and Civilization	6
117 Life Drawing	4	223A,B Lettering, Typography & Rendering	6
201A, B Art and Civilization	6		
216A, B Beginning Sculpture	6	Concentration (upper division-42 units)	
Concentration (upper division—42 units)		323A,B Graphic Design	6
316A, B Sculpture	6	338A Creative Photography	3
317A, B Life Studies, Drawing and Painting	6	363A,B Illustration	6
326A Ceramic Sculpture	3	483A Special Studies, Graphic Design	6
336A Techniques and Theories, Cast Sculpture	3	498 Internship	3
486A Special Studies, Sculpture	6	300 Writing in the Visual Arts*	3
300 Writing in the Visual Arts*	3	Upper-division art history	9
Upper-division art history	9	Upper-division art electives	6
Upper-division art electives	6	Illustration	
Crafts		Preparation (lower division-28 units)	
Preparation (lower division-28 units)		103 Two-Dimensional Design	3
103 Two-Dimensional Design	3	104 Three-Dimensional Design	3
104 Three-Dimensional Design	3	107A,B Beginning Drawing and Painting	6
107A,B Beginning Drawing and Painting	6	117 Life Drawing	4
117 Life Drawing	1	123A Descriptive Drawing	3
123B Descriptive Drawing	3	201A,B Art and Civilization	6
201A,B Art and Civilization	6	223A Lettering, Typography & Rendering	3
205A,B Beginning Crafts	6		
Concentration (upper division-42 units)		Concentration (upper division—42 units)	
305A,B Advanced Crafts	6	317A,B Life Studies, Drawing and Painting	6
Select 9 units from:	9	323A Graphic Design	3
306A,B Advanced Ceramics		363A,B Illustration	6
315A,B Jewelry		483C Special Studies, Design & Comp	6
325A,B Metalsmithing		498 Internship	3
330 Fibers and Papers		300 Writing in the Visual Arts*	3
355A,B Fibers, Fabric Printing & Dyeing		Upper-division art history	9
364A,B Stained Glass		Upper-division art electives	6
365A,B Weaving			
485B Special Studies, Crafts	6	Environmental Design	
498 Internship in Art	3	Preparation (lower division-28 units)	
300 Writing in the Visual Arts*	3	103 Two-Dimensional Design	3
Upper-division art history	9	104 Three-Dimensional Design	3
Upper-division art electives	6	107A,B Beginning Drawing and Painting	6
Ceramics		117 Life Drawing	1
Preparation (lower division-28 units)		123B Descriptive Drawing	3
103 Two-Dimensional Design	3	201A,B Art and Civilization	6
104 Three-Dimensional Design	3	213A,B Beginning Environmental Design	6
106A,B Beginning Ceramics	6		
107A,B Beginning Drawing and Painting	6	Concentration (upper division-42 units)	
117 Life Drawing	4	313A,B Environmental Design	6
201A,B Art and Civilization	6	333A,B Environmental Design	6
		453A Exhibition Design	3
		483B Special Studies, Environ Design	6
		498 Internship in Art	3
		300 Writing in the Visual Arts*	3
		Upper-division art history	9
		Upper-division art electives	6

Creative Photography

Preparation (lower division-28 units)

103 Two-Dimensional Design	3
104 Three-Dimensional Design	3
107A,B Beginning Drawing and Painting	6
117 Life Drawing	4
123A Descriptive Drawing	3
201A,B Art and Civilization	6
247 Beginning Printmaking	3

Concentration (upper division-42 units)

317A Life Studies, Drawing and Painting	3
338A,B Creative Photography	6
339A Photo Illustration	3
438A,B Creative Color Photography	6
489 Special Studies, Creative Photo	6
300 Writing in the Visual Arts *	3
Upper-division art history	9
Upper-division art electives	6

*Students must also take and pass the Examination in Writing Proficiency (EWP).

The following additional list of courses would be strongly recommended for any student who wishes to expand his/her knowledge in any or all of the arts:

Art 100, 101, 103, 104, 106A, 107A, 201A,B, 310A,B, 330, 380, 441A,B

Dance 101,112, 122, 132, 142, 323A,B, 422

Music 111A,B, 184A,B, 251, 281P,B,S,W, 283, 381

Theatre 100, 206A,B, 263, 276A, 277, 370A,B, 402A,B, 403A,B

MINOR IN ART

A minimum of 24 units is required for a minor in art of which a minimum of 10 units must be in upper division courses. Included in the program must be a basic course in each of the following areas: (1) art history, theory, analysis and criticism; (2) design; (3) drawing and painting; and (4) crafts. Those students planning to qualify for a standard teaching credential with specialization in elementary or secondary teaching and art for a minor must obtain approval from the Art Department for the courses selected to meet the upper division requirements for a minor in art.

MASTER OF ARTS IN ART

The program of studies leading to this degree provides a balance of study and practice for those who wish a stronger educational and experiential basis for a professional career in the visual arts, or who wish advanced study in preparation for further graduate work in the field. This graduate program is for students who are seriously committed, responsible, and experienced and have concentrated within a specific area of art. The program offers the following areas of concentration: (1) drawing and painting (including printmaking); (2) sculpture; (3) crafts (including ceramics, wood, glass, fibers, jewelry/metalsmithing); (4) design (including environmental design, graphic design, illustration, exhibition design, or creative photography); and (5) art history.

Admission Requirements

1. Conditionally classified standing requires:

- A baccalaureate degree from an accredited institution.
- GPA minimum of 2.5 in the last 60 semester units attempted.
- Special requirements:
 - (1) Studio program: satisfactory review of preliminary portfolio by a faculty member in the area of studio concentration.
 - (2) Art history program: satisfactory preliminary interview by a faculty member in art history.

2. Classified standing requires:

- An approved undergraduate major in art or 24 units of approved upper division art including at least 12 units in the area of concentration completed with grades of B or better.
- Portfolio review—before any units may apply to the approved study program for the degree, the student must arrange an area faculty committee evaluation of the student's background, including a statement of purpose by the student and review of creative work; or, for art history applicants, submission of assigned research papers. Portfolio review dates are usually in April for the following fall semester, and in November for the following spring semester of each year. Arrangements may be made through the Art Department office to meet these deadlines prior to admission.
- Art history program: reading knowledge of a foreign language required before advancement to candidacy.
- Development of an approved study plan.

Study Plan

The degree program requires 30 units of graduate study approved by the student's graduate committee of which 15 must be 500-level courses. The 30 units are distributed as follows:

Units

- Core courses in art history, philosophy, analysis and criticism 9
 - Studio program:
 - Art 500A, Graduate Seminar in Major Field (3units)
 - Art history program:
 - Art 511, Seminar on the Content and Method of Art History (3 units) (ADMISSION WITH CLASSIFIED STANDING ONLY)
 - Studio Program:
 - Art 500B Graduate Seminar in Major Field (3units)
 - Art history program:
 - Art 512, Seminar on Selected Topics in Art History (3 units) (ADMISSION WITH CLASSIFIED STANDING ONLY)
 - Art 481 Seminar in Art History (3 units), or substitute of a 400-level course in art history, theory, analysis or criticism on the recommendation of the major adviser.
- 500-and/or 400-level courses in the area of concentration selected from one of the following (minimum of six units at 500 level). 12

- A. Drawing and painting (including printmaking)
 - B. Sculpture
 - C. Crafts (including ceramics, glass, fibers, wood, jewelry/metalsmithing)
 - D. Design (including environmental design, graphic design, illustration, exhibition design, or creative photography)
 - E. Art history
3. Additional course work in the area of concentration or approved electives 3 or 6
4. Art 597, Project (for studio); or Art 598, Thesis (for art history) 3 or 6
- Total 30

The M.A. study plan must be completed with a B average, and all courses in the area of concentration be completed with grades of B or better. Every graduate student is required to demonstrate writing ability commensurate with the baccalaureate degree. Please refer to the section on Graduate Regulations for further clarification. The Department of Art requires the studio candidate for the Master of Arts in Art to exhibit the project in one of the department's graduate galleries prior to graduation. The art history candidate is required to submit a written thesis based on a specific topic of research.

For further information consult the graduate program adviser.

MASTER OF FINE ARTS IN ART

The Master of Fine Arts is a rigorous studio program for students with advanced proficiency and focus who are committed to becoming professional artists. The M.F.A. program provides in-depth study within a 60-unit approved study plan in the following areas of concentration: (1) design (including graphic design, illustration, environmental design, and exhibition design); (2) ceramics (including glass); (3) crafts (including fibers, jewelry/metalsmithing, and woodworking/furniture); (4) sculpture; (5) drawing, painting, and printmaking; and (6) creative photography.

Admission Requirements

An applicant may apply to the university in one of three categories:

1. Postbaccalaureate Unclassified (no degree objective or major declared). This is for students who hold a bachelor's degree and wish to take additional course work to fulfill prerequisites or prepare for the comprehensive review. To qualify for admission an applicant must hold a baccalaureate degree from an accredited institution, have attained a GPA of at least 2.5 in the last 60 units attempted and have been in good standing at the last college attended. Admission with postbaccalaureate unclassified standing does not constitute admission to the art graduate program or graduate degree curricula.
2. Conditionally Classified (objective declared in art). An applicant who is admitted with conditionally classified standing may enroll in graduate courses with the exception of ART 500 A,B. Ad-

mission requirements are the same as for postbaccalaureate unclassified standing. In addition, the department requires all applicants to undertake the comprehensive portfolio review and be recommended for conditionally classified standing by the faculty portfolio review committee.

3. Classified (approved study plan for the M.F.A. degree). Admission requirements are the same as for postbaccalaureate unclassified, with the addition of the following requirements:
 - a. An approved undergraduate major in art or 24 units of approved upper-division art including a minimum of 18 units of upper-division study in the area of concentration completed with a grade-point average of 3.0 or better.
 - b. Comprehensive Portfolio Review. Before any units may apply to the approved study plan for the degree, students must receive a satisfactory faculty committee evaluation of their creative work, their ability to verbalize about their work and their academic background. The comprehensive portfolio review is held semi-annually, in the fall and spring. Exact dates are announced each semester. A detailed description of the portfolio review may be obtained from the art department graduate secretary.
 - c. Development, with the student's graduate committee, of an approved study plan.

Study Plan

The M.F.A. degree program requires 60 units of graduate study approved by the student's graduate committee and the dean of graduate studies. The study plan must be completed with a grade-point average of 3.0 or better. The courses in the concentration must be completed with a grade of "B" or better. The 60 unit study plan is distributed as follows:

Areas	Units
Theory, criticism: Art 500A, 500B	6
History	9
Area of concentration	24
Electives in art	12
Independent study: research	3
Project	6
Total	60

Master of Fine Arts Project

The M.F.A. project exhibition constitutes a professional one-person art exhibit which is installed in one of the department's graduate galleries and announced for public view by the student as the final phase of the M.F.A. program requirements.

The Department of Art is nationally accredited at the highest level of quality and professionalism (Division I) by the National Association of Schools of Art and Design. For further details on the comprehensive portfolio review, communicate with the graduate coordinator or graduate secretary in the art department, Visual Arts 102 [(714/773-3471)].

CERTIFICATE IN MUSEUM STUDIES

Courses leading to the certificate are designed to educate students in museum practices in preparation for entry into the museum profession. The curric-

ulum includes instruction in the historical development and philosophical basis of collections, exhibitions and their design, and curatorship. A museum internship is required. The certificate in museum studies may be undertaken as a self-contained program or may be taken in conjunction with the Master of Arts in Art degree or the Master of Fine Arts in Art degree or, by special permission, with other graduate degrees in the university. (For an M.A. or M.F.A. in Art degree with an exhibition design emphasis see M.A. and M.F.A. emphases under the design concentration.)

Prerequisites

1. B.A. in Art or other major by special permission
2. Specific course prerequisites:
 - A. 12 units in upper-division art history
 - B. 6 units in graphic design and exhibition design
 - C. 3 units of advanced writing (Communications 435, Editorial and Critical Writing; or Communications 362, Public Relations Writing; or English 301, Advanced College Writing)
 - D. 3 units of beginning accounting

Study Plan

The certificate program requires 24 units. The 24 units are distributed as follows:

	<i>Units</i>
1. Art 463 Museum Studies	3
2. Art 481 Seminar in Art History	3
3. Art 464 Museum Conservation	3
4. Art 483D Exhibition Design	3
5. Art 498 Internship in Art	3
6. Art 501 Curatorship	3
7. Art 503D Exhibition Design	6
Total	24

For further information, consult the Department of Art.

Art Courses

100 Exploratory Course in Art (3)

Use of a variety of art materials, processes and concepts. Field trips required. Not open to art majors for credit except by permission of Art Department. (6 hours activity)

101 Introduction to Art (3)

Historical and contemporary art forms of painting, sculpture, architecture and design. Field trips required. Not open to art majors for credit except by permission of Art Department.

103 Two-dimensional Design (3)

Materials, concepts and elements of two-dimensional visual organization. (6 hours activity)

104 Three-dimensional Design (3)

Materials, concepts and elements of three-dimensional visual organization. (6 hours activity)

106A Beginning Ceramics (3)

Form as related to ceramic materials, tools, processes. Kiln loading and firing, hand building, wheel throwing and raku. (9 hours laboratory)

106B Beginning Ceramics (3)

Prerequisites: Art 106A. Form as related to ceramics. Glaze batching and its application, and the presentation of ceramic technique. (9 hours laboratory)

107A,B Beginning Drawing and Painting (3,3)

The traditional and contemporary use of drawing and painting materials integrated with visual experiences and concepts. 107A emphasizes drawing; 107B emphasizes painting. (6 hours activity)

117 Life Drawing (1)

The live model. May be repeated to a maximum of 4 units. (3 hours activity for each unit)

123A,B Descriptive Drawing (3,3)

Traditional and contemporary drawing techniques and theories. 123A, representation of nature forms; 123B, manmade and mechanical forms including linear perspective. (6 hours activity)

201A,B Art and Civilization (3,3)

The ideas, forms and styles of the visual arts as they developed in various cultures from prehistoric time to the present.

205A Beginning Crafts (3)

Traditional and contemporary concepts and processes with emphasis on design principles in the development of esthetic forms based on function. (9 hours laboratory)

205B Beginning Crafts (3)

Prerequisites: Art 103, 104 and 205A. Art 104 may be taken concurrently. The development of esthetic forms based on function, with emphasis on design principles and the creative use of hand tools and power equipment. (9 hours laboratory)

207A,B Drawing and Painting (Experimental Methods and Materials) (3,3)

Prerequisites: Art 117, 107A,B or equivalents. Traditional and contemporary methods and materials. (6 hours activity)

213A Beginning Environmental Design (3)

Prerequisites: Art 103 and 104. Design methodology and communication skills in the environmental design field. (6 hours activity)

213B Interior Space Planning and Design (3)

Prerequisites: Art 103, 104; 213A or consent of instructor. The planning and organization of residential and commercial interior space. (6 hours activity)

216A,B Beginning Sculpture (3,3)

Prerequisite: Art 104, sculpture: The creative use of wood and metal, power equipment and hand tools. (9 hours laboratory)

223A,B Lettering, Typography and Rendering (3,3)

Prerequisite: Art 103. The history, design and use of letter forms; techniques for rough and comprehensive layouts; the use of hand-lettered forms and handset type. (6 hours activity)

247 Beginning Printmaking (3)

Prerequisite: Art 107A,B. Printmaking forms; litho, etching, woodcut and serigraphy. (9 hours laboratory)

300 Writing in the Visual Arts (3)

Principles, practices and objectives of writing in the visual arts. Includes descriptive, analytical and expressive essays; project and grant proposals; artist's statements; resumes; and professional correspondence. Satisfies the classroom portion of the upper-division writing requirements for art majors.

- 301 Ancient Art (3)**
The developments in art from the Paleolithic to late antiquity.
- 302 Medieval Art (3)**
The developments in art from the late antiquity through the Gothic.
- 303 Architectural and Interior Rendering (3)**
Prerequisite: Art 123B or consent of instructor. Rendering of architectural, interior and landscape environments, utilizing mechanical perspective and contemporary design drawing delineation techniques. Mixed media. (6 hour activity)
- 305A,B Advanced Crafts (3,3)**
Prerequisites: 205A and 205B. Advanced concepts and processes in the development of esthetic forms based on function, emphasizing individual growth and personal expression. (9 hours laboratory)
- 306A,B Advanced Ceramics (3,3)**
Prerequisite: Art 103, 104 and 106A,B. Forms and the creative use of ceramic concepts and materials; design, forming, glazing and firing. (9 hours laboratory)
- 307A,B Drawing and Painting (3,3)**
Prerequisites: Art 107A,B, 117, 207A,B or equivalents. The concepts, materials and activities of drawing and painting, emphasizing individual growth, plan and craft. (6 hours activity)
- 310A,B Watercolor (3,3)**
Prerequisite: Art 107A,B or equivalents. An exploration of watercolor media related to varied subject matter and design applications. Includes field trip activity. Provides skills and concepts useful for school art programs. (6 hours activity)
- 311 Foundations of Modern Art (3) (Formerly 411)**
Prerequisite: upper division standing. Painting and sculpture of the realism, impressionism, post-impressionism periods.
- 312 Art of the 20th Century-1900 to Present (3) (Formerly 412)**
Prerequisite: upper division standing. Fundamentals of modern painting, graphics and architecture.
- 313A Environmental Design: Unit Concepts (3)**
Prerequisites: Art 103, 104 and 213. Environmental design projects and the study of unit concepts. (6 hours activity)
- 313B Environmental Design: Systems Concepts (3)**
Prerequisite: Art 313A. Environmental design projects and systems concepts. (6 hours activity)
- 315A,B Jewelry (3,3)**
Prerequisites: Art 205A and 305A. Art 305A may be taken concurrently. Design and creation of jewelry. (9 hours lab)
- 316A,B Sculpture (3,3)**
Prerequisites: Art 104 and 216A. Sculptural materials and processes. (9 hours laboratory)
- 317 Life Studies (3)**
Prerequisites: three units lower division life drawing. Drawing, painting and sculpture from the live model. (9 hours lab)
- 317A Drawing and Painting**
317B Drawing and Painting
317C Sculpting
- 318A Drawing and Painting the Head and Hands (3) (Formerly 318)**
Prerequisites: Art 107A,B and Art 117. Specialized problems in construction and anatomy of the human head and hands, and their principal use in drawing, painting and illustration. (9 hours laboratory)
- 318B Portraiture (3)**
Prerequisites: Art 107A, 107B, 3 units of Art 117. Comprehensive problems in composition, concept, content and execution of portraits.
- 320 History of Architecture Before the Modern Era (3)**
A study of selected monuments from Stonehenge through the late Baroque. Interrelationship between patronage, style, function, structural principles and technological developments.
- 323A,B Graphic Design (3,3)**
Prerequisites: Art 103 and 223A. Development and projection of ideas in relation to the technical, esthetic and psychological aspects of advertising art. (6 hours activity)
- 324 Beginning Glass Forming (3) (Formerly 226)**
Prerequisites: Art 103 and 104 or consent of instructor. Hot glass laboratory equipment and techniques. Handling hot glass. (9 hours laboratory)
- 326A,B Ceramic Sculpture (3,3)**
Prerequisites: Art 103, 104, 117 or consent of instructor. Development of ceramic technology into individual sculptural forms and techniques. (9 hours laboratory)
- 330 Fibers and Papers (3)**
Prerequisites: Art 103 and 104, or consent of instructor. The use of fibers and papers as an art form. (9 hours laboratory)
- 333A Environmental Design (3)**
Prerequisite: Art 313B. Materials and structural concepts as design determinants. (6 hours activity)
- 333B Environmental Design (3)**
Prerequisite: Art 333A. Change and growth as design determinants; experimental design concepts and methods. (6 hours activity)
- 336A,B Casting Techniques and Theories of Cast Sculpture (3,3)**
Prerequisite: Art 316A. Waxing, molding and metal casting techniques. Aluminum and bronze and the lost wax process. (9 hours laboratory)
- 338A Creative Photography (3)**
Prerequisite: Art 103 or its equivalent. The photographic media in personal expression. Historical attitudes and processes; new materials and contemporary esthetic trends. Field trips required. (9 hours laboratory)
- 338B Creative Photography (3)**
Prerequisite: Art 338A. The photographic medium in personal expression. Historical and new processes. Field trips required. (9 hours laboratory)
- 339A Photo-Illustration (3) (Formerly 339)**
Prerequisites: Art 103 and 338. The use of specialized photographic techniques such as lighting, camera position, color and motion for solutions to illustration problems of narration, visual description, juxtaposition and imagery. (9 hours laboratory)

- 339B Photo Illustration (3)**
Prerequisites: 338A and 339A, or consent of instructor. Concepts and attitudes in the field of photo illustration. Illustration problems using narrative, visual description, juxtaposition and imagery.
- 347A Printmaking—Etching (3)**
Prerequisites: Art 107A,B, 117, and 247. Concept development, exploration and materials involved in printmaking techniques. Includes etching, aquatint. (9 hours laboratory)
- 347B Printmaking—Lithography (3)**
Prerequisites: Art 107A,B, 117, and 247. Concept development, exploration and materials involved in lithography. (9 hours laboratory)
- 348 Artists' Books (3)**
Prerequisites: Art 103, 107A or 247, or consent of instructor. Personal vision and concepts applied to the book form as art; the history and aesthetics of artists' books.
- 353 Environmental Design Practice (3)**
Prerequisites: Art 213, 313 and 333, or consent of instructor. Environmental design practice, including research techniques, project administration, specification writing, estimating, forms and documents, evaluation techniques and ethics. Areas of emphasis: interior design, architecture, landscape architecture.
- 355A,B Fibers: Fabric Printing and Dyeing (3,3)**
Prerequisites: Art 103, 107A or B or consent of instructor. Design concepts and printing and dyeing processes as applied to fabrics. (9 hours laboratory)
- 363A,B Illustration (3,3)**
Prerequisites: Art 103, 107A,B and 117. Story, book, magazine, and film illustration. (6 hours activity)
- 364A,B Stained Glass (3,3)**
Leaded and stained glass; individual exploration, growth, planning and craftsmanship. (6 hours activity)
- 365A,B Fibers: Weaving (3,3)**
Prerequisites: Art 103 and 104 or 205A,B or consent of instructor. The use of the loom and weaving processes to design and create fiber and fabric art forms. (9 hours laboratory)
- 371 History and Theory of Design (3)**
Prerequisites: Art 201A and B. The chronology of design in relation to the philosophical and theoretical ideologies which have, along with related socio-political and economic conditions, influenced its implementation and development.
- 373 Methods in Exhibit Design (3)**
Prerequisites: Art 103 and 123B. Exhibition Design: spatial concepts, modular systems, traffic patterns and object visual criteria. Drawings, working and finished models, and material specifications.
- 375 Professional Practices in the Arts (3)**
Practices unique to the visual arts, including an overview of changing concepts in the art market, traditional roles in cultural context, portfolio development, strategies for protecting ideas and avoiding abuses, and long term professional development.
- 380 Art and Child Development (3)**
Art concepts, materials and processes as they relate to child development. (6 hours activity)
- 413 History of Contemporary Art (3)**
Prerequisites: 312 and 461B or consent of instructor. A historical perspective of contemporary art beginning with major developments in Europe and the United States in the 1950's. Emphasis on new materials, new exhibition methods, and in particular the major conceptual issues raised by individual artists and groups.
- 420 History of Modern Architecture (3)**
Development of modern architecture. The interrelationship among architecture, technology and society, from the industrial and political revolutions of the 18th century to the present. Exploration of national differences and various approaches to city planning.
- 424A,B Glass Forming (3,3) (Formerly 426A,B)**
Prerequisites: Art 103, 104, 324 or consent of instructor. The chemistry, handling and manipulation of glass and its tools and equipment for the ceramic artist. (9 hours laboratory)
- 431 Renaissance Art (3)**
Painting, sculpture and architecture of the Renaissance period. Lectures, discussion and field trips.
- 432 Baroque and Rococo Art (3)**
Painting, sculpture and architecture of the Baroque and Rococo period. Lectures, discussion and field trips.
- 438A,B Creative Color Photography (3,3)**
Prerequisites: Art 338A,B. Concepts and techniques in creative color photography. Historical attitudes and contemporary trends. Personal involvement with the medium. (9 hours laboratory)
- 441A,B Media Exploration for Teaching Art (3,3)**
Prerequisites: Art 103, 104, 107A,B, 205A or consent of instructor. Exploring the art media used in secondary school art programs today. Materials for secondary art curriculum. Two and three dimensional media in subject matter applications. (6 hours activity)
- 443 Studio Graphics (3)**
Prerequisites: Art 223A,B and 323A,B. Admission by interview and portfolio review. Studio production of graphics for the School of the Arts, including printed mailers, posters, booklets, catalogs, advertisements. Students experience designer/client relationships and translate concepts into production. (9 hours activity)
- 453A,B Exhibition Design (3,3)**
Technical and esthetic experience in problem-solving exhibition design concepts, evaluation and design analysis. The production of exhibitions in the University Art Gallery, their selection, design, installation, lighting and supportive interpretive material. (More than 9 hours laboratory)
- 460B Pre-Columbian Art (3)**
Prerequisites: Art 201A,B or consent of instructor. An introduction to the art and architecture of Meso and South America from the early formative stage to the Spanish Conquest. Emphasis on esthetic achievement with varying contexts of Pre-Columbia culture.
- 461A American Art: Colonial Period to 1900 (3)**
The historical development of painting and sculpture in America from the Colonial Period until 1900. The role of the visual arts in helping to define, reflect and challenge American values and institutions.

461B American Art: 20th Century (3)

Painting and sculpture in America during the 20th century. The role of the visual arts in helping to define, reflect and challenge American values and institutions.

463 Museum Studies (3)

Prerequisites: Art 453A, six units of art history or anthropology, and consent of instructor. Museums, their structure, function and operation. Museum governance, ethics, grant proposal preparation, conservation and educational programming.

464 Museum Conservation (3)

Prerequisite: Art 463. The examination of the preservation of objects; the history, role and principles of conservation within a museum context. Three combined sessions at Conservation Center, LACMA; Huntington Library; J. Paul Getty Museum; and Museum of Cultural History, UCLA.

470 History and Esthetics of Photography (3)

Prerequisites: 201A,B. Photography from ancient optical observations through 19th-century invention to 20th-century acceptance as an art form. Esthetic movement and influential innovators. Lectures, slides and class discussion.

481 Seminar in Art History (3)

Prerequisite: consent of instructor. Study and evaluation in one area of art history and appreciation. May be repeated up to a maximum of 6 units.

483 Special Studies in Design (3)

Prerequisite: consent of instructor. Maximum of 12 units, but no more than 3 units in any one area in a single semester.

483A Graphic Design (6 hours activity)

483B Environmental Design (6 hours activity)

483C Illustrations (6 hours activity)

483D Exhibition Design (More than 9 hours laboratory)

483E Computer Assisted Graphics (3)

Prerequisites: Art 313A or Art 323A or Art 363A and consent of instructor. Theory and practice of design using the computer. Students will explore the numerous applications of the computer through lecture demonstration, studio/laboratory experience, guest speakers and field trips. May be repeated twice for credit.

484A Special Studies in Ceramics (3)

Prerequisite: a minimum of six upper-division units in ceramics. Maximum of 12 units, but no more than three units in any one area in a single semester. (9 hours laboratory)

484B Special Studies in Glass (3)

Prerequisite: a minimum of six upper-division units in glass. Maximum of 12 units, but no more than three units in any one area in a single semester. (9 hours laboratory)

485 Special Studies in Crafts (3)

Prerequisite: a minimum of six upper-division units in designated area or consent of instructor. Maximum of 12 units, but no more than three units in any one area in a single semester. (9 hours laboratory)

485A Jewelry

485B General Crafts

485C Metalsmithing

485D Fibers—Weaving

485E Fibers—Fabric Printing and Dyeing

485F Fibers and Fabrics

486 Special Studies in Sculpture (3)

Prerequisites: Art 316A,B and consent of instructor. Maximum of 12 units but no more than three units in a single semester. (9 hours laboratory)

486A Modeling and Fabrication

486B Casting

487 Special Studies in Drawing and Painting and Printmaking (3)

Prerequisites: a minimum of six upper-division units in drawing and painting, and consent of instructor. Maximum of 12 units, but no more than three units in any one area in a single semester.

487A Painting (6 hours activity)

487B Life Drawing (9 hours laboratory)

487C Drawing (6 hours activity)

487D Printmaking (9 hours laboratory)

489 Special Studies in Creative Photography (3)

Prerequisite: Art 338A,B. Photography as personal expression. Maximum of 12 units but no more than three units in a single semester. (9 hours laboratory)

490 Professional Seminar (3)

Guest speakers from professions in the visual arts. A lecture/discussion seminar relevant to current issues and concepts in making and experiencing art. Topics will differ each semester. For the senior and graduate art major. May be repeated up to a maximum of 6 units.

498 Internship in Art (3)

Work in a specific art field in business or industry. Must have senior standing.

499 Independent Research (1-3)

Open to advanced students in art with consent of department chair and written consent of instructor. May be repeated for credit.

500A Graduate Seminar in Major Field (3)

Prerequisite: classified standing. Problems and issues in art. Intellectual clarification and verbal articulation of individual intent as an artist. Oral and written material in support of the master's project. (with 500B meets graduate level writing requirement)

500B Graduate Seminar in Major Field (3)

Prerequisite: Art 500A. Directed research in the area of major emphasis. Oral and written material on historical backgrounds and developments in art as they relate to individual intent as an artist (stated in Art 500A) and in support of the master's project. (with 500A meets graduate level writing requirement)

501 Curatorship (3)

Prerequisites: B.A. in art, anthropology or other major by special permission, and Art 481 and 463. The curator collects, cares for and studies objects.

503 Graduate Problems in Design (3)

Prerequisite: consent of instructor. Planning, development and evaluation of individual projects listed below. Maximum of 12 units in each area, but no more than three units in any one area in a single semester.

503A Graphic Design (6 hours activity)

503B Environmental Design (6 hours activity)

503C Illustrations (6 hours activity)

503D Exhibition Design (More than 9 hours laboratory)

504A,B Graduate Problems in Ceramics (3,3) (Formerly 504)

Prerequisite: consent of instructor. Planning, development and evaluation of individual projects in ceramics. Maximum of 12 units in each area but no more than three units in a single semester. (9 hours laboratory)

505 Graduate Problems in Crafts (3)

Prerequisite: consent of instructor. Planning, development and evaluation of individual projects listed below. Maximum of 12 units in each area but no more than three units in a single semester. (9 hours laboratory)

505A Jewelry

505B General Crafts

505D Fibers—Weaving, Fibers and Fabrics

506A,B Graduate Problems in Sculpture (3,3) (Formerly 506)

Prerequisite: consent of instructor. Planning, development and evaluation of individual projects in sculpture. Maximum of 12 units in each area but no more than three units in a single semester. (9 hours laboratory)

507 Graduate Problems in Drawing, Painting and Printmaking (3)

Prerequisite: 12 units of upper-division drawing and painting. Planning, development and evaluation of individual projects listed below. Maximum of 12 units in each area but no more than three units in a single semester.

507A Painting (6 hours activity)

507B Life Drawing (9 hours laboratory)

507C Drawing (6 hours activity)

507D Printmaking (9 hours laboratory)

508A,B Graduate Problems in Creative Photography (3,3)

Prerequisite: Consent of instructor. Planning, development and evaluation of individual projects in photography. Maximum of 12 units in each area, but no more than three units in a single semester. (9 hours laboratory)

511 Seminar on the Content & Method of Art History (3)

Prerequisite: Art 481. Methods of research, bibliography, and theories and philosophies of art historical scholarship. May be repeated up to a maximum of 6 units.

512 Seminar on Selected Topics in Art History (3)

Prerequisite: appropriate upper-division Art course approved by instructor and Art 511 or consent of instructor. Analysis and evaluation of specific historical significance including cultural, social and economic circumstances. May be repeated up to a maximum of 6 units.

597 Project (3 or 6)

Prerequisites: Art 500A,B, written consent of instructor and recommendation of the student's graduate committee. Art 500B may be taken concurrently with Art 597 on approval of instructor. Development and presentation of a creative project in the concentration beyond regularly offered coursework.

598 Thesis (3 or 6)

Prerequisites: Art 511, 512, written consent of instructor and recommendation of the student's graduate committee.

599 Independent Graduate Research (1-3)

Open to graduate students in art with consent of department chair and written consent of instructor. May be repeated for credit.

Art Education Courses

442 Teaching Art in the Secondary School (3)

Prerequisite: admission to teacher education. Objectives, methods and practices for teaching art in secondary schools. Required before student teaching of majors in art for the single subject teaching credential.

449E Externship in Secondary Teaching (3) (Formerly 449A)

For candidates who have declared for the Ryan Act credential. See description and prerequisites under Division of Teacher Education. Offered every fall semester.

449I Internship in Secondary Teaching (10) (Formerly 449A)

For candidates who have declared for the Ryan Act credential. See description and prerequisites under Division of Teacher Education. Concurrent enrollment in Art Education 449S required. Offered every spring semester.

449S Seminar in Secondary Teaching (2) (Formerly 449B)

Seminar for student teachers in art. The practical aspects of art instruction in secondary schools. Concurrent enrollment in Art Education 449I required. Offered every spring semester.

Department of Music

Department Chair: David Thorsen

Vice Chair: Carole Harrison

Department Office: Performing Arts 262

Programs Offered

Bachelor of Arts in Music

- Liberal Arts
- Music Education
- Music History and Theory

Bachelor of Music

- Commercial Music
- Composition
- Instrumental
- Keyboard
- Voice
- Accompanying

Minor in Music

Master of Arts in Music

- Music History and Literature
- Music Education

Master of Music

- Performance
- Theory-Composition

Single Subject (Secondary) Credential

Faculty

Charles Baker, Martha Baker, David Berfield, Andrew Charlton, M'lou Dietzer, Rita Fuszek, Kathleen Gjerdingen, Su Harmon, Carole Harrison, Nors Josephson, Burton Karson, Leo Kreter, Michael Kurkjian, Dimitrie Leivici, Gary Maas, Todd Miller, Benton Minor, Gordon Paine, Jane Paul, Lloyd Rodgers, Preston Stedman, Robert Stewart, David Thorsen, Laurance Timm, Rodger Vaughan, Edmund Williams, Mary Mark Zeyen

INTRODUCTION

Music is one of the most rewarding of all human endeavors, and the faculty and students in the Department of Music share a deep love for their art and a common desire to achieve excellence in it. The department offers a wide spectrum of degree programs and options with an overall emphasis in the area of performance. The curriculum provides basic preparation for careers in music or further graduate study, and is designed to provide a balanced education in the many facets of musical experience. Artist-teachers offer instruction in all areas of performance, while practicing composers and theorists teach courses in theory, and active musicologists provide instruction in history and literature. It is the goal of the department to develop each student's musical and intellectual potential to the highest level of individual capability. The Department of Music is

485E Fibers—Fabric Printing and Dyeing
485F Fibers and Fabrics

fully accredited by the National Association of Schools of Music, in addition to the overall university accreditation by the Western Association of Schools and Colleges.

Credential Information

The Department of Music offers course work leading to a CSUF Waiver Program in Music for the Ryan Single Subject Teaching Credential. For details, contact the Admission to Teacher Education Office and the coordinator of music education.

The Department of Music offers supplementary authorizations for the Ryan Single Subject Teaching Credential in Instrumental Music and in Vocal Music. A supplementary authorization in music is offered for the Ryan Multiple Subject Teaching Credential. For details contact the Office of Admission to Teacher Education.

Advisement

All music majors are required to obtain advisement each semester. Area coordinators serve as the advisers, and students are assigned according to area of concentration.

Requirements of the Music Department

1. All entering music majors must register in the Bachelor of Arts degree program for at least the first semester of residence. Students may change the degree objective to the Bachelor of Music upon completion of at least one semester of course work at the university, successful completion of an audition for the program, and recommendation of the coordinator in the appropriate area of concentration. Enrollment in the Bachelor of Music program is limited.
2. Upon entering the university as a new music major or upon officially changing to a major in music, each student will present an audition in the appropriate principal performance area (instrument or voice) and a placement audition for class piano.
3. All students must pass proficiency examinations in traditional harmony (sight-singing, dictation, keyboard and paperwork) and piano before being approved for graduation. Transfer students will fulfill the theory requirement by passing the entrance examination in theory; first-time students and transfers with insufficient preparation at entrance will normally take the examination in Music 211. The piano-proficiency requirement may be met by completion of Music 282B with a passing grade. Students whose principal performance area is piano satisfy the piano proficiency requirement upon reaching 300 level in performance.
4. Each music major must declare a single principal performance area, which must be approved by the coordinator of that area upon completion of the entrance audition. In order to be approved for graduation, each student must achieve at least the 300 level of proficiency in the principal performance area. B.A. Liberal Arts-option students who elect project option 2 (Music 497: Project) need reach only the 200 level.
5. Each music major is required to present one or more recitals or a project appropriate to the de-

gree program before being approved for graduation. The project option is available only in the Liberal Arts and Music History and Theory options of the Bachelor of Arts degree. Recitals at the 300 level of performance are designated Music 398; recitals at the 400 level of performance are designated Music 498. See the sections below on the Liberal Arts and Music History and Theory options for recital/project information applicable to those degrees.

6. Undergraduate music majors are required to participate in a major performance ensemble (Music 361) and complete it with a passing grade each semester of residence as follows:
 - a. Students who declare wind or percussion as the principal performance area must register for band (or orchestra, if designated by the instrumental area coordinator); students who declare a string instrument as principal performance area must register for orchestra; students who declare voice as the principal performance area must register for chorus. (Bachelor of Music students in voice who have reached the 400 level may elect to substitute 361D, Opera Theatre.) A student whose principal performance area is keyboard or classical guitar must register for one of the above major performance ensembles, according to the student's qualifications and subject to audition.
 - b. A music major admitted into the Bachelor of Music program whose senior recital instrument is keyboard or classical guitar and who has participated in a major performance ensemble for at least five semesters (a minimum of two semesters at Cal State Fullerton) may thereafter substitute chamber music and/or small performance ensembles (Mu 363, 386) to satisfy the departmental major performance ensemble (Mu 361) requirement.
 - c. The educational purpose of the requirement that all music majors participate in an appropriate major performance ensemble during each semester of residence is to permit each student to experience the highest level of ensemble music-making commensurate with the student's skill. To this end, the band/orchestra and choir programs at Cal State Fullerton are of the traditional graded structure. University Singers (361E), Wind Ensemble (361F) and Symphony Orchestra (361A) are for the most advanced students; University Choir (361B), Concert Band (361C) and Women's Choir (361W) are for students of less skill or experience. Placement in bands, orchestra and choirs will be based on student ability as determined by the directors of those ensembles. Music majors will be assigned to the ensemble for which they are best qualified. A student does not have the option of satisfying the requirements for participation in a major performance ensemble by enrolling in an ensemble intended for those of less ability or experience.
7. Applied-music study in the principal performance area is required as stipulated under the

requirements for each degree program. The following conditions apply:

- a. If a student pursuing the Bachelor of Arts degree (Music History and Theory) or the Bachelor of Music degree (Composition) reaches the 300 level in the principal performance area before the required units in applied music are completed, Music Department electives may be substituted for the remaining applied music units.
- b. In addition to the four units of applied music required in the principal performance area, Bachelor of Music students in the Composition option must complete six units of applied composition (including the 498 recital) after taking Music 422A. The 498 recital will consist of a presentation of the student's own compositions.
- c. Students pursuing the Bachelor of Music degree in any option except composition must achieve the 300 level in performance before giving the 398 recital and 400 level in performance before giving the 498 recital. Specific information on jury-level criteria is available from the Music Department office.
- d. In order to receive state-funded lessons in applied music, an undergraduate student (with the exception of a student who is within six units of completing all degree requirements) must be currently enrolled for a minimum of six units of music classes (including applied music), at least two units of which must be in an academic area of music (any course other than performing ensembles and applied music). In addition, the student must earn a passing grade in all music courses, must be making satisfactory progress toward a degree, and must be currently enrolled in the appropriate major performance ensemble, as stipulated in section 6 above. If the student fails to complete with a passing grade either the required six units of music classes or the major performance ensemble, state-funded lessons will be withheld in the subsequent semester. Students are eligible for a maximum of three semesters of state-funded lessons at a given level of performance.
- e. Students in the B.A. program are eligible for a maximum of eight units of state-funded applied music (398 and 497 included). B.M. students are eligible for a maximum of 14 units (398 and 498 included.) Regardless of whether or not the student has reached the above maxima, eligibility for state-funded lessons ceases upon completion of the final recital or project appropriate to the degree plan. Students who have completed the final recital or project and still have further units of applied music required under their degree plan will thereafter substitute electives in music.
8. Senior transfer students entering Cal State Fullerton with a major in music, or graduate students in music entering to satisfy the legal waiver for teaching credentials, are expected to complete a minimum of one semester of upper-

division course work in music with a GPA of at least 3.0 before they may be approved for admittance to teacher education. Required courses and competencies must be satisfied before the faculty committee will consider endorsing the student's acceptance into the credential program.

9. A music major must maintain a 2.5 GPA in music course work at the university in order to be approved for graduation.
10. All requests for exceptions to departmental or curricular requirements must be directed by petition to the department chair.

MUSIC DEGREE PROGRAMS

The Department of Music offers a variety of courses that lead to baccalaureate and graduate degrees in teaching and the professions. The baccalaureate degree may be earned in either of two degree programs (Bachelor of Arts and Bachelor of Music). Within these programs, a student will pursue an emphasis in liberal arts, music history and theory, music education, performance, composition or accompanying.

BACHELOR OF ARTS IN MUSIC

The Bachelor of Arts in Music shall consist of no fewer than 50 units of music, of which at least 29 shall be upper division (300 level and above). All Bachelor of Arts students must complete the basic requirements listed immediately below and must select and complete the requirements listed in one of three options: Liberal Arts, Music History and Theory or Music Education.

Core Requirements

	Units
Music theory (Music 111A,B; 211; 319A; 320A or B)	14
Music history and literature (Music 251; 351A,B,C)	12
Principal performance area (Applied Music)	4
Major performance ensemble (Music 361A,B,C,E,F,W)	4
Total	34

Liberal Arts Option

This option allows a student to take an academic major in music without being involved in a program of professional preparation. The degree emphasis is historically the oldest such study plan in music in higher education and represents a liberal-arts response to the highly professional program of the Bachelor of Music degree.

	Units
Core requirements for BA degree	34
Additional upper-division units in music	
Music theory (Music 316 or 318, 323A or 422A)	4
Conducting (Music 391A or 392A)	2
Senior project (Music 398 or 497)	1
Music literature (Music 453A or 460)	2
Electives (minimum of 6 upper division; no more than 2 units of Music 171-471)	7
Total	50

Senior Project

Two options are available to the student, each with a different focus and prerequisite:

Option 1 (Music 398: Recital): Prerequisite is achievement of 300 level in the area of principal performance one semester before the semester in which the student plans to present the recital. The student will present a brief recital in a regular recital time or in the appropriate workshop (at faculty discretion).

Option 2 (Music 497: Project): Prerequisite is achievement of 200 level two semesters before the semester in which the student plans to present the project. The student will prepare a special project in the senior year which will culminate in a lecture, lecture-recital or other form of public presentation. To the greatest extent possible, this project should be an independent investigation into an area of special interest and should involve minimal faculty guidance. The public presentation will be evaluated by a faculty committee, as is the case with senior recitals, and must be approved by that committee prior to graduation.

In the case of both options, the recital or project will be included when calculating the student's quota of state-funded private lessons.

Music History and Theory Option

This option is designed as a balanced program in music history and theory and provides suitable preparation for advanced degrees in theory, literature or musicology. It also provides basic preparation for advanced study in other fields, such as musical acoustics, music therapy, ethnomusicology, library science in music, and music in industry and recreation.

Students seeking the option in Music History and Theory must submit a paper to the music history or theory coordinator not later than the beginning of their junior year. Acceptance into the degree program is contingent on the submission of a satisfactory paper.

Allied requirements for the Music History and Theory Option:

1. Twenty units in a secondary academic area (not music, but related to the student's project or useful to prepare the student for future graduate work in music). The choice of a secondary academic area must be approved in writing by the coordinator of music history and theory. Suggested areas: art, English, theatre, history, physics (acoustics), anthropology, languages or computer science.
2. Foreign language proficiency, preferably German, to be satisfied by one of the following:
 - a. Four years of study at the secondary school level,
 - b. Passing an examination given by the Department of Foreign Languages and Literatures, or
 - c. Completing with a passing grade the second semester of the beginning university sequence of a foreign language.

	Units
Core requirements for the Bachelor of Arts	34
Music theory (Music 316, 319B or C)	4
Conducting or composition (Music 391A or 2392A or 422A)	2
Project-proposal preparation (Music 499)	1
Music history or theory project (Music 497)	1
Electives in music (conducting, history and/or theory)	8
Total	50

Music Education Option

Piano Pedagogy Emphasis:

The emphasis in piano pedagogy is designed to provide in-depth preparation for individual and group piano instruction and will not lead to teaching in the California public schools.

	Units
Core requirements for Bachelor of Arts	34
Keyboard Ensemble (363K)	1
Applied Piano (371)	1
Conducting (391 or 392)	2
Recital (398)	1
Piano Literature and Interpretation (454A, B)	4
Piano Pedagogy (467A,B,C)*	6
Electives (372, 373, 385, 386 recommended by advisement)	1
Total	50

* Co-enrollment in Observation and Practice Teaching (Music 465 and 466) strongly advised.

Instrumental, Vocal-Choral, General Music Emphases:

The emphases in instrumental, vocal-choral and general music are designed to provide in-depth preparation for teaching in the California public schools under the provisions of the Teacher Preparation and Licensing Law of 1970 (Ryan Act).

Instrumental Emphasis:

Core requirements for the Bachelor of Arts	34
Orchestral instruments (Music 281B,P,S and W)	4
Music theory (Music 323A and 320A, 320B, 323B or 324)	4
Conducting (Music 392A,B)	4
Recital (Music 398)	1
Electives	3
Total	50

Vocal-Choral Emphasis:

Core requirement for the Bachelor of Arts	34
Diction for Singers (Music 390)	1
Orchestral Instruments (Music 281B,P,S,W)	4
Conducting (Music 391A,B)	4
Literature and interpretation (Music 453A or B and 457A or B or 468A)	4
Recital (Music 398)	1
Electives	2
Total	50

General Music Emphasis:

Core requirements for Bachelor of Arts	34
Music and Child Development (Music 333)	3
Conducting (Music 391A,B)	4
Orchestral Instruments (Music 281B,P,S,W)	4
Music in the Modern Classroom (Music 435)	3
Recital (Music 398)	1
Electives in music	1
Total	50

Credential Information

Students desiring a California teaching credential in music must complete the following courses prior to enrolling in the professional education program as required by the Department of Secondary Education.

	Units
Instrumental Emphasis:	
Music Education 342, 399I, Music 391A, 444, and Music 281C,T,X	10
Choral-Vocal Emphasis:	
Music Education 342, Music 354, Music Education 399V, Music 392A, 361D	9
General Music Emphasis:	
Music 381, Music Education 342, 399V, 441, 436	11

Students who wish to earn a teaching credential in addition to a Bachelor of Arts with a music education option must complete the following:

	Units
Music Education 442 (3) Music Education 449E (3) and professional education courses	
Secondary Education 440F and 440S	12
Music Education 449I (Student teaching) and Music Education 449S	12
Total	24

Prior to admission to teacher education, the student must reach 300 level in the principal performance area and pass functional examinations in keyboard and voice. The functional examination requirements may also be met by completing Music 282B (piano) and Music 283 (voice) with minimum grade of B.

BACHELOR OF MUSIC

This degree program is designed to provide training for the highly gifted students who show promise and capability of becoming professional performers and composers.

The degree consists of 132 semester units. A minimum of 70 semester units in music are required, at least 32 of which must be upper division.

Core Requirements for the Bachelor of Music

	Units
Music Theory (Music 111A,B: 211: 319A: 320A or 320B*)	14
Music History and Literature (Music 251; 351A,B,C)	12
Principal Performance Area (Applied Music)	6
Major Performance Ensemble (Music 361)	4
Recital (Music 498)	1
Total	37

*Music 320A and 320B required in Concentration in Composition

Composition Concentration

Core requirements for the Bachelor of Music	37
Music theory (Music 316; 318; 319B or 319C; 323A; 422A)	12
Conducting (Music 391A or 392A)	2
Applied composition	5
Electives in music	14
Total	70

Instrumental Concentration

Core requirements for the Bachelor of Music	37
Music theory (Music 316, 323A, 422A)	6
Principal performance area (Applied Music)	6
Recital (Music 398)	1
Conducting (Music 392A,B)	4
Chamber music (Music 362 and 363)	6
Electives in music	10
Total	70

Keyboard Concentration

Core requirements for the Bachelor of Music	37
Music theory (Music 316, 320A or B, 319A, 422A)	4
Music literature (Music 454A,B)	4
Conducting (Music 391A or 392A)	2
Recital (Music 398)	1
Principal performance area (Applied Music)	6
Chamber music (Music 362 or 363)	3
Accompanying (Music 386)	1
Pedagogy (Music 467A,B,C)	6
Harpichord or Organ class (Music 372 or 373)	1
Electives in music	5
Total	70

Voice Concentration

Core requirements for the Bachelor of Music	37
Music theory (Music 316, 422A)	4
Music literature (Music 456; 457A,B)	7
Recital (Music 398)	1
Principal performance area (Applied Music)	6
Opera Theatre (Music 361D)	2
Diction (Music 390A,B,C)	3
Conducting (Music 391A)	2
Pedagogy (Music 468A,B)	4
Electives in music	4
Total	70

Allied requirement for voice concentration

Proficiency in two foreign languages (French, German, Italian), each to be satisfied by one of the following:

- Four years study of foreign language at the secondary school level, or
- Passing an examination given by the Department of Foreign Languages and Literatures, or
- Completing the second semester of the beginning university sequence of a foreign language.

Accompanying Concentration

Core requirements for the Bachelor of Music	37
Music theory (Music 316, 318, 422A)	6
Music literature (Music 455, 457A)	5
Principal performance area (Applied Music)	5
Chamber music (Music 363)	2
Harpichord class (Music 372)	1
Organ class (Music 373)	1
Sight reading (Music 385)	2
Accompanying (Music 386)	2
Conducting (Music 391A)	2
Diction (Music 390A,B,C)	3
Recitals (Music 398, 498)	2
Electives in music	2
Total	70

Commercial Music Concentration: Instrumental Emphasis

	Units
Core requirements for the Bachelor of Music	37
Music Theory (Music 312A,B)	4
History of American Commercial Music (Music 356)	3
Principal Performance Area (Applied Music)	6
Improvisation (Music 265A,B)	3
Major Performance Ensemble (Music 361)	4
Recital (398)	1
Lab Band or Stage Band (Music 362L or 362S)	4
Electives in Music	8
Total	70

Commercial Music Concentration: Composition-Arranging Emphasis

	Units
Core requirements for the Bachelor of Music	37
Music Theory (Music 312A,B; Music 314A,B; Music 323A)	10
History of American Commercial Music (Music 356)	3
Applied Composition/Arranging	5
Improvisation (Music 265A)	1
Major Performance Ensemble (Music 361)	4
Lab Band or Stage Band (Music 362L or 362S)	4
Recital (Music 398)	1
Electives in Music	5
Total	70

MINOR IN MUSIC

The minor in music may be used by persons whose majors are in other fields. A maximum of 14 lower-division units may be included in work counted toward the music minor. The minor requires a minimum preparation of 20 units.

Composite of Lower Division and Upper Division

	Units
Theory of music (selected from Music 101; 111A,B; 211; or any 300- or 400-level theory classes for which the student is qualified)	6
Music history and literature (Music 100; 251; 350 or 351A,B,C; or courses at the 400- or 500-level for which the student is qualified)	5-6
Applied techniques (selected from Music 183, 184A,B; 281B,P,S,W; 283 or any course in ensemble, conducting, piano, voice or orchestral instruments at the 300- or 400-level for which the student is qualified)	8-9
Total	20

MASTER OF MUSIC AND MASTER OF ARTS IN MUSIC

Two graduate degrees in music are offered in the Department of Music: the Master of Music and the Master of Arts. Each degree seeks to serve a special group of graduate students. For those who intend to pursue advanced degrees beyond the master's level, the Master of Music normally leads to the D.M.A. degree, and the Master of Arts to the Ph.D. or the Ed.D.

Admission to Graduate Standing: Conditionally Classified

All applicants admitted into the music program enter initially in conditionally classified graduate standing. University requirements include: a baccalaureate

from an accredited institution; a grade-point average of at least 2.5 in the last 60 semester units attempted; and good standing at the last college attended. In addition, each applicant must present a satisfactory entrance audition and submit an acceptable written essay in the area of specialization.

Graduate Standing: Classified

A graduate student may apply for classified graduate standing only upon attainment of the following prerequisites: (a) completion of all requirements for conditionally classified standing as described above; (b) a major in music (or the equivalent of a major; i.e., 29 upper-division units in music) with a minimum grade-point average of 3.0 in the major; and (c) satisfactory completion of Music 500, Introduction to Graduate Study in Music. One objective of Music 500 is the selection of a Departmental Advisory Committee which aids in the preparation of a study plan listing all courses required for completion of the degree. This study plan must receive the approval of the student's advisory committee, the Music Department graduate program adviser and the dean of graduate studies. Opportunity is given the student to remove deficiencies by taking certain prescribed courses, but such courses cannot be applied to the master's degree program.

Special Graduation Requirements

Written comprehensive examinations in music history and music theory are required of all students following achievement of classified graduate standing. In addition, for Option 1 in music history and literature only, for the Master of Arts, the student must demonstrate reading ability in at least one foreign language, preferably German or French.

MASTER OF MUSIC

The Master of Music provides an avenue of graduate study for the highly creative composer or for the superior performer in a program tailored to each student's demonstrated talent and to each student's professional development. Applicants must have completed either a Bachelor of Music degree in performance or composition or show evidence of equivalent rigorous training. For the entrance audition, applicants in *performance* must demonstrate proficiency equivalent to the 400 level, that level expected of a performance major in the Bachelor of Music program at the time of the senior recital, while *composition* applicants must submit a portfolio of scores for examination by the composition faculty. For admission to the programs in *choral* or *instrumental conducting*, applicants must show evidence of substantial conducting course work at the undergraduate level plus practical experience. Further, to audition for entrance into the program, each choral applicant must demonstrate conducting proficiency with a mixed chorus and each instrumental applicant must demonstrate conducting proficiency with a band or orchestra. Under exceptional circumstances, a tape may be substituted for the live audition.

Study Plan

The Master of Music degree program requires a minimum of 30 units of graduate study in music, at

least half of which must be in 500-level courses. Music 500, Introduction to Graduate Study in Music, must be taken within the first nine units. At least one recital is required, in addition to a corollary written project. Under certain circumstances, and with departmental approval, a thesis may be substituted for the recital and written project.

MASTER OF ARTS IN MUSIC

The Master of Arts provides advanced studies in breadth as well as in an area of specialization, either *music education* or *music history and literature*. The degree is for teachers and supervisors of music and for college teaching careers in music history or music education. For the entrance audition in *history and literature*, applicants must submit an example of a previously-written research paper on a musical subject, while applicants to the program in *music education* must submit a 30-minute tape demonstrating their teaching technique in a classroom situation.

Study Plan

The Master of Arts degree program requires a minimum of 30 units of graduate study, no more than nine of which may be outside the field of music and at least half of which must be in 500-level courses in the major.

Two options are offered in this degree program. Option I in history and literature requires reading ability in a foreign language, preferably German or French, prior to advancement to candidacy, a thesis and at least six units of study in a non-music field which is supportive of the major. Option II in music education requires either a thesis or a project, depending upon the nature of the student's graduate research. Ten semester units are common to both options (Music 500, 3 units; Music 361-363, 2 units; Music 371-571, 2 units; and Music 551-556, 3 units). Music 500, Introduction to Graduate Study in Music, must be included within the first nine units taken as a graduate student under both options.

For further details or advisement, consult the Department of Music.

Music Courses

100 Introduction to Music (3)

Musical enjoyment and understanding through a general survey of musical literature representative of styles and performance media. Music will be related to other arts through lectures, recordings and concerts. For non-music majors.

101 Music Theory for Non-Music Majors (3)

Basic theory and practical applications to improve music performance and listening skills. Includes sightsinging and relationship to keyboard and simple melodic instruments. For non-music majors.

103 History of Rock (3)

Rock music around the world; its origins and the development of national styles. Emphasis on listening. For non-music majors.

111A,B Diatonic Harmony (3,3)

Diatonic harmony and musicianship. Includes scales and in-

tervals, triads and their inversions, harmonizations, non-harmonic tones, modulation and dominant seventh chords. Includes sightsinging, dictation and keyboard harmonizations. (2 hours lecture, 2 hours activity)

171, 271, 371, 471 Individual Instruction (1-2)

Prerequisite: jury recommendation. Individual study with approved instructor. Emphasis on technique and repertoire. Music majors must register for a minimum of one unit per semester. Performance majors approved by jury recommendation should register for two units per semester. Jury examination required. May be repeated for credit.

182 Piano Class for Music Majors (2)

Keyboard skills for students whose major performance instrument is not piano. (3 hours activity)

183 Voice Class for Non-Majors (1)

Beginning and elementary techniques in singing for the non-music major. May be repeated for credit. (2 hours activity)

184A Piano Class for Non-Majors (1)

Beginning and elementary piano techniques for the non-music major. (2 hours activity)

184B Piano Class for Non-Majors (1)

Prerequisite: Music 184A or consent of instructor. Continuation of 184A.

196 Student-to-Student Tutorials (1-3)

Prerequisites: a 3.0 or higher grade-point average and/or consent of instructor and simultaneous enrollment in the course or previous enrollment in a similar course or its equivalent. Consult "University Curricula" in this catalog for more complete course description.

211 Chromatic Harmony (3)

Prerequisite: Music 111B. Continuation of Music 111A,B; the chromatic practice of the 19th century. Secondary dominants; ninth, eleventh and thirteenth chords; sequence, and chromatically altered chords. Includes sightsinging, melodic and harmonic dictation, and keyboard practice. Required of all music majors. (2 hours lecture, 2 hours activity)

251 Survey of Musical Literature (3)

Literature of music in Western civilization. Open to minors and qualified students by consent of instructor. Students should be able to read music as a part of the analysis of form, design and style. Required of majors. (3 hours lecture)

265A Jazz Improvisation I (1)

Prerequisite: Music 111A,B, ability on a standard jazz instrument or consent of instructor. Application of scales and their relationship to chords, includes modes, jazz rhythmic phrasing, blues progressions, and cycle of dominant seventh chords. Basic jazz keyboard drills and ear training involved.

265B Jazz Improvisation II (1)

Prerequisites: Music 265A and 211, or consent of instructor. Continuation of modal patterns and jazz rhythms for improvisation. Explores melodic construction in improvisation. Emphasis on playing II-V-I progressions in major and minor keys. Includes jazz keyboard drills and ear training.

281B,C,P,S,T,W,X Orchestral Instruments (1,1,1,1,1,1,1)

Techniques and materials for teaching orchestral instruments. Required for music education emphasis. Instrumental majors required to fulfill competency requirements for instruments listed in each course description except that of their major performance instrument. May be repeated for credit. (3 hours activity)

- 281B Brass Instruments (1)**
Trumpet and French Horn.
- 281C Brass Instruments (1)**
Trombone, Baritone and Tuba.
- 281P Percussion Instruments (1)**
Snare drum and mallet-played instruments with related work on other standard percussion instruments.
- 281S String Instruments (1)**
Violin and Viola.
- 281T String Instruments (1)**
Cello and String Bass.
- 281W Woodwind Instruments (1)**
Flute, Clarinet and Saxophone.
- 281X Woodwind Instruments (1)**
Oboe and Bassoon.
- 282A,B Piano Class for Music Majors (2,2)**
Keyboard skills for students whose major performance field is not piano. **A**—Prerequisite: Music 182 or placement by instructor. **B**—Prerequisite: Music 282A or placement by instructor. Meets minimum piano proficiency requirements for degree. (3 hours activity)
- 283 Voice Class for Instrumentalists (1)**
Prerequisite: placement by coordinator. Recommended for credential candidates. Not required for voice majors. (2 hours activity)
- 301 Techniques of Song Writing (3)**
Prerequisites: Music 101 or consent of instructor. Melody writing and setting of text to music. Includes consideration of metric values of text, music and chord progressions. For non-music majors.
- 302 History of Jazz (3) (Formerly 102)**
Prerequisite: Upper division standing. Historical study of jazz music in America; chronological development and stylistic evolution with consideration of peripheral trends. Emphasis on listening. For non-music majors.
- 303 Ethnic Music (3) (Formerly 203)**
Prerequisite: Mu 100 or consent of instructor. Survey of music from Asia, Africa, Australia, Oceania, and indigenous Indian music from North and South America. Emphasis on musical styles and forms, and religious and ritualistic functions of music in various cultural frameworks.
- 304 Music of Mexico (3) (Formerly 204)**
Survey of the art, folk and traditional music of Mexico from pre-Cortesian aboriginal music to 20th-century style, including neo-Hispanic, folk (corrido, etc.), mestizo, mariachi, nationalistic, jazz and modern art music. Interrelationship between traditional (folk) and serious (art) music; effects of Mexico's history on its music.
- 312A,B Commercial Arranging (3)**
Prerequisite: Music 211. Harmonic practices in commercial music; stage band and jazz writing techniques. (May be repeated once for credit.)
- 314A Special Projects in Commercial Music (2)**
Prerequisite: Music 312B or consent of instructor. Three- and four-part voice accompaniment; planning and executing the multi-chorus small group arrangement.
- 314B Special Projects in Commercial Music (2)**
Prerequisite: Music 314A or consent of instructor. Introduction to harmonic substitutions; planning and executing arrangements for larger groups of instruments.
- 316 16th-Century Counterpoint (2)**
Prerequisite: Music 211 or consent of instructor. Sixteenth-century counterpoint in two, three and four parts, covering motet, canon, double counterpoint.
- 318 18th-Century Counterpoint (2)**
Prerequisite: Music 316 or consent of instructor. Eighteenth-century counterpoint in two, three and four parts, covering invention, canon, double and triple counterpoint and fugue.
- 319A,B Form and Analysis (3,2,2)**
Prerequisite: Music 211 or consent of instructor. **A**—Analysis of structural elements of music such as motive phrase and period: binary, ternary, rondo, sonata allegro and larger musical forms in representative musical works. Required of all music majors. **B**—Continuation of A; larger musical works. **C**—Continuation of A and B; literature of the 20th century.
- 320A,B 20th-Century Techniques (2,2)**
Prerequisite: Music 211. Compositional practices of the 20th century; emphasis on written examples in the various styles, includes sightsinging, keyboard practice and dictation. **A**—Compositional techniques from 1890 to 1945. **B**—Compositional techniques since 1945, to include the synthesis of sound. (1 hour lecture, 2 hours activity)
- 323A Orchestration (2)**
Prerequisite: Music 391A, 320 or consent of instructor. Writing and analysis of orchestral music.
- 324 Scoring for the Band (2)**
Prerequisite: Music 323A or consent of instructor. Devices, techniques and skills required to produce complete transcriptions for the contemporary public school wind band.
- 333 Music and Child Development (3)**
Prerequisite: Music 101 or equivalent or successful completion of proficiency test. The relationship of music to child growth and development for the child from 5 to 12. Survey of age-appropriate music materials.
- 350 Music in Our Society (3)**
Prerequisite: Music 100 or consent of instructor. Music in its relationship to general culture. A sociological approach; musical criticism and journalism, concert life, audience psychology and the political/religious/business aspects of the American musical scene.
- 351A History and Literature of Music (3)**
Prerequisite: Music 211 and 251 or consent of instructor. A study of the history and literature of music from early Greek beginnings through the Renaissance area.
- 351B History and Literature of Music (3)**
Prerequisite: Music 351A. A study of the history and literature of music of the Baroque and Classic eras. Fulfills the course requirement of the university upper division baccalaureate writing requirement for music majors.
- 351C History and Literature of Music (3)**
Prerequisite: Music 351B. A study of the history and literature of music from the Romantic era to the present.
- 352 Symphonic Music in Western and Eastern Cultures (3)**
Prerequisite: Music 100 or 101 or consent of instructor. Survey of symphonic music in Western and Eastern cultures from Baroque through Modern periods.
- 354 Survey of Public School Choral Music Materials (2)**
Prerequisite: Music 391A. Examination and analysis of choral repertoire suitable for junior and senior high choruses.

355 Film Music (3)

Prerequisites: Music 100 and an ability to read music or Music 101. An historical survey of motion picture musical scores. Analysis, listening and examination of motion picture scores.

356 History of American Commercial Music (3)

Prerequisites: Music 251, 312A, 319A and consent of instructor. A study of American commercial music in the 20th century: jazz, popular, rock, theatre, dance, film, and television; will include stylistic, formal, and harmonic analysis of selected works.

361A-W Major Performance Ensemble (1)

Study and performance of standard and contemporary music literature. Public concerts on campus and in the community each semester; participation is required. A concert tour may be included by some groups. (More than 3 hours major production) May be repeated for credit.

361A Symphony Orchestra (1)

Prerequisite: audition or consent of instructor.

361B University Choir (1)

Prerequisite: consent of instructor.

361C University Concert Band (1)

Prerequisite: consent of instructor.

361D Opera Theatre (1)

Roles and representative excerpts from standard and contemporary operas and the musical, dramatic and language techniques of the musical theatre. Performance of operatic excerpts and complete operas. Also open to non-vocal majors.

361E University Singers (1)

Prerequisite: advanced voice students or those accepted by audition.

361F University Wind Ensemble (1)

Prerequisite: advanced wind and percussion students accepted by audition.

361W Women's Choir (1)

Prerequisite: consent of instructor. Performance of choral literature.

362B Varsity Band (1)

Prerequisite: consent of instructor. The Varsity Band provides music for Titan football and basketball games, and other related activities. May be repeated for credit.

362D Percussion Ensemble (1)

Prerequisite: consent of instructor. Study and performance of music written for the Percussion Ensemble. May be repeated for credit. (2 hours activity)

362E Brass Ensemble (1)

Prerequisite: consent of instructor. Study and performance of music written for large brass choir/ensemble. May be repeated for credit. (2 hours activity)

362L Lab Band (1) (Formerly 362A)

Open by audition or consent of instructor. Public performances on campus and in the community. May be repeated for credit.

362M Horn Ensemble (1)

Prerequisite: consent of instructor. Study and performance of music written for French Horn Ensemble with emphasis on the solution of various problems relating to multiple horn literature.

362P Choral Laboratory (1)

Open by audition or with consent of instructor. Performance of choral literature for small vocal ensembles using student conductors. May be repeated for credit.

362R Chamber Orchestra (1) (Formerly 362H)

Prerequisite: consent of instructor. Study and performance of representative chamber orchestra literature. Open to university students and qualified adults in the community. May be repeated for credit.

362S Stage Band (1)

Prerequisite: Open by audition and consent of instructor. (For those who do not qualify by audition for 362L.) Jazz and jazz-rock ensemble; public performance each semester. Open to non-music majors by audition. May be repeated for credit.

362X Beginning Opera Techniques (1)

Prerequisite: recommendation of voice faculty. Arias for the beginning opera student, and fundamentals of stage movement. May be repeated for credit.

362Z Advanced Opera Techniques (1)

Prerequisite: consent of instructor. Aria preparation, role study and character analysis. Musical style of contrasting arias; orchestral techniques; language and transliterations of libretti. May be repeated for credit.

363B-W Chamber Music Ensembles (1)

Open to all qualified wind, string or keyboard students. Ensembles will study, read and perform representative chamber literature of all periods. May be repeated for credit. (2 hours activity)

363B Brass**363G Guitar****363K Keyboard****363S Strings****363W Woodwind****365C Composition Workshop (1)**

Weekly workshop presentation by student composers, faculty and guests. May be repeated for credit.

365I Instrumental Workshop (1)

Application of instrumental technique to performance practices through lecture, demonstrations, master classes and ancillary recitals. Recommended for instrumental major each semester. May be repeated for credit.

365K Keyboard Workshop (1)

Weekly workshop performances by students, faculty and guests. Recommended for keyboard major each semester. May be repeated for credit.

365V Vocal Workshop (1)

Application of vocal technique to performance practices through lecture—demonstration, master classes and ancillary recitals. Recommended for vocal major each semester. May be repeated for credit.

372 Harpsichord Class for Music Majors (1)

Prerequisite: 300-jury level in piano or organ or consent of instructor. The harpsichord as an instrument, the application of baroque stylistic characteristics, and training in the rudiments of continuo playing in ensemble with voices and instruments. (2 hours activity)

373 Organ Class for Music Majors (1)

Prerequisite: 300-jury level in piano or consent of instructor. The organ as an instrument, the playing techniques, and repertoire. The differences between piano and organ techniques. (2 hours activity)

- 381 Survey of Recreational Instruments (1)**
Recreational instrument practices and a survey of materials. Emphasis on recorder and guitar. (2 hours activity)
- 385 Functional Skills for Keyboard Majors (2)**
Development of the ability to sight-read, harmonize, transpose and improvise. (4 hours activity)
- 386 Piano Accompanying (1)**
Prerequisite: by audition only. Piano accompaniments for instrumentalists, vocalists and ensembles. Participation in rehearsals, recitals and concerts required. May be repeated for credit. (2 hours activity)
- 390A,B,C Diction for Singers (1,1,1)**
Prerequisite: sophomore standing or consent of instructor. Proper singing diction; may not be considered a substitute for formal language study. Examples from standard vocal literature explained through the use of the International Phonetic Alphabet. **A**— Italian. **B**— German. **C**— French.
- 391A,B Choral Conducting (2,2)**
Prerequisite: one semester of voice class or consent of instructor. **A**— Principles, techniques and methods of conducting choral groups. Required of all music education majors. (4 hours activity) **B**— Continuation of 391A including laboratory work with class and vocal ensembles, using standard choral repertoire. (4 hours activity)
- 392A,B Instrumental Conducting (2,2)**
Prerequisite: two courses from 281B,P,S,W or consent of instructor. **A**— Principles, techniques and methods of conducting orchestral and band groups. Required of all music education majors. (4 hours activity) **B**— Continuation of 391A, including laboratory experience in conducting instrumental groups, using standard instrumental literature. (4 hours activity)
- 396 Internship: Professional Experience (1-3)**
Fieldwork in music under supervision of resident faculty and professionals in the field. Requires minimum six hours fieldwork per week for each unit credit. May be repeated for credit to a maximum of six units. Open to all music students by consent of instructor.
- 398 Recital (1)**
Prerequisites: 300-jury level in the principal performance area and consent of instructor. Corequisite: Enrollment in Music 365C,I,K or V. Preparation and presentation of representative works in the principal performance area. In the semester of recital presentation, Music 398 will substitute for one unit of 371.
- 411 Theory Seminar (3)**
Prerequisites: Completion of all lower division theory requirements, and at least senior standing or equivalent. A survey of the theoretical basis of music from 1500 to the present through analysis, readings and discussion.
- 422A Composition (2)**
Prerequisites: Music 316, 319A and 320A or B or consent of instructor. **A**— Ear-training analysis of smaller forms, simple composition of two- and three-part song form styles. **B**— Analysis and writing of more complex musical forms.
- 424 Practicum: Electronic Music Laboratory (1)**
Prerequisites: Music 320B, 471 level in applied music composition and consent of instructor. Individual and group instruction in electronic music composition. May be repeated for credit. (3 hours laboratory)
- 433 Music in Early Childhood (3)**
Prerequisite: ability to read and perform simple songs and games for young children. Songs, games, creative activities and materials suitable for young children in nursery school and early childhood education (approximately 3-6 years). Teaching-learning strategies. Field work is conducted in a neighboring public school.
- 435 Music in the Modern Classroom (3)**
Prerequisite: Music 333 or consent of instructor. A survey of 20th-century materials and techniques of recordings for creative movement to music, and of choral materials and techniques appropriate for the elementary school choir.
- 444 Survey of Marching Bands (2)**
Prerequisite: consent of instructor. Techniques, materials, administration for marching band. Charting for field shows and parade activities.
- 450 History of Musical Style (3)**
Prerequisites: Music 351A,B,C, or equivalent, or consent of instructor. An intensive investigation of the principal musical styles in Western music from Ancient Greece to the present, with an analytical/philosophical examination of reasons for stylistic changes.
- 453A,B Choral Literature and Interpretation (2,2)**
A—Prerequisites: Music 391A or equivalent and 351A,B. Choral literature from Medieval, Renaissance and Baroque eras analyzed in historical perspective. Appropriate performance practices. **B**—Prerequisites: Music 391A or equivalent and 351C. Continuation of A with examples from the Classic, Romantic and Contemporary eras.
- 454A,B Piano Literature and Interpretation (2,2)**
Prerequisites: Music 351A,B and junior level piano standing, or consent of instructor. Performance of representative styles and schools of piano literature; solo and ensemble repertoire. **A**— contrapuntal forms, sonatas and variations. **B**— Character pieces, fantasies, suites and etudes.
- 455 Instrumental Chamber Literature and Interpretation (3)**
Open to all music majors, or to non-majors by consent of instructor. The class will be grouped into ensembles for demonstration purposes. The stylistic differences required in performing works of all periods.
- 456 Opera Literature and Interpretation (3)**
Prerequisite: Music 351A,B,C or consent of instructor. All periods and nationalities, including stylistic and historical connotations.
- 457A Song Literature and Interpretation (2)**
Prerequisite: Music 319A, 390B or consent of instructor. Study and performance of German Lieder with representative examples of periods and styles.
- 457B Song Literature and Interpretation (2)**
Prerequisite: Music 390C or consent of instructor. Study and performance of French art songs with representative examples of periods and styles.
- 458 Church Music; History, Literature and Methods (2)**
Prerequisites: Music 351A,B or consent of instructor. A survey of the role of music in the worship traditions of the Christian Church; methods for implementation and maintenance of a successful church music program.

- 459 Guitar Literature, Interpretation and Pedagogy (3)**
Prerequisite: 300-jury level in guitar or consent of instructor. The literature available to guitarists. Works for lute, vihuela and baroque guitar and the compositions and transcriptions for the modern guitar. Materials and methods essential for the guitar instructor.
- 460 Interpretation of Early Music (3)**
Prerequisite: 300-jury level in principal performance area. The stylistic interpretations of vocal and instrumental literature from the 16th, 17th and 18th centuries. For the senior or graduate student majoring in performance. (May be repeated twice for credit.)
- 465 Observation in Applied Piano (1)**
Prerequisite: piano major, sophomore standing. Observation of specialists in private music teaching, teaching techniques, materials, development of student and preparation for beginners, adult beginners, intermediate and early advanced students under the specialist in these areas. Requires written reports of activity in these areas. Coenrollment in Music 467A or 467C required.
- 466 Pedagogy Internship (1)**
Prerequisites: Music 465 and 467A. Coenrollment in Music 467B required. Supervised internship in private piano teaching.
- 467A,B,C Piano Pedagogy (2,2,2)**
Prerequisite: junior piano standing or consent of instructor. Fundamentals of piano pedagogy for individual and group instruction. **A**— Materials and methods for beginning and elementary students. Coenrollment in Music 465 recommended. **B**— Materials and methods of intermediate and early advanced students. Physiology and psychology for studio teachers. Coenrollment in Music 466 recommended. **C**— Prerequisite: 467A or consent of instructor. Observation and practice teaching while learning organizational procedures, teaching techniques and course literature for class piano.
- 468A,B Vocal Pedagogy (2,2)**
Prerequisite: senior standing or consent of instructor. **A**— Fundamentals of vocal pedagogy for studio and public school teaching; physiology and acoustics as they apply to singing. **B**— Application of the fundamentals discussed in A. Seminar discussions and actual studio teaching. The diagnosis and cure of specific vocal problems.
- 485 Score Reading (2)**
Prerequisite: Music 282B and 391A,B, or 392A,B. Techniques for preparing scores (choral and instrumental) at the keyboard. Intended primarily for conductors and composers.
- 496 Student-to-Student Tutorials (1-3)**
Prerequisites: a 3.0 or more grade-point average and/or consent of instructor and simultaneous enrollment in the course or previous enrollment in a similar course or its equivalent. Consult "Student-to-Student Tutorials" in this catalog for more complete course description.
- 497 Senior Project (1)**
Independent investigation of an area of special interest in music culminating in a public performance, lecture, lecture-recital or other suitable demonstration.
- 498 Recital (1)**
Prerequisites: 400-jury level in the principal performance area (400-jury level in composition for composition majors) and consent of instructor. Corequisite: Coenrollment in Music 365C,I,K or V. Preparation and presentation of representative works in the principal performance area. In the semester of recital presentation, Music 498 will substitute for one unit of Music 471.
- 499 Independent Study (1-3)**
A special topic in music selected in consultation with and supervised by the instructor. May be repeated for credit.
- 500 Introduction to Graduate Study in Music (3)**
Required of all graduate music majors. Basic bibliography, literature, and research techniques and materials useful in graduate music study.
- 552 Seminar in Music of the Renaissance (3)**
Prerequisite: consent of instructor. The forms, styles, and development characteristics of music between 1450 and 1600. Analysis of works by representative composers and theoretical writers.
- 553 Seminar in Music of the Baroque Period (3)**
Prerequisite: Music 351A,B or consent of instructor. Musical forms, styles, and performance practices of the baroque period. Analysis of representative works.
- 554 Seminar in Music of the Classic Period (3)**
Prerequisite: Music 351A,B or consent of instructor. The history and literature of music from approximately 1750 to 1825. Analysis of representative works.
- 555 Seminar in Music of the Romantic Period (3)**
Prerequisite: consent of instructor. The structure and development of music in the 19th century. Analysis of representative works.
- 556 Seminar in 20th-Century Music (3)**
Prerequisite: Music 351A,B,C or consent of instructor. Developments in the music of western Europe and the western hemisphere since 1890. Contemporary music and its structure.
- 558 Collegium Musicum (2)**
Prerequisite: consent of instructor. Advanced studies in the performance of rare and old music, which may include notation, transcription, arranging, research, and performance. May be repeated for credit.
- 567 Seminar in Piano Pedagogy (3)**
Graduate level study of the advanced learning theories, musical issues, and pedagogical methods involved in teaching piano through lectures, discussions and student presentations. Practice teaching required.
- 569 Seminar in Piano Concerti (3)**
Advanced study of piano concerti with performance and analysis by class members and lectures by the instructor. Requirements can be met by performance and/or analysis.
- 570 Seminar in Piano Literature (2)**
Prerequisite: Music 500 or consent of instructor. Advanced study of piano literature, with performances and analyses by class members and lectures by the instructor. Requirements can be met by performance and/or analysis. May be repeated for credit.
- 571 Individual Instruction (1-2)**
Prerequisite: jury recommendation. Individual instruction with approved instructor. Emphasis on performance techniques and repertoire. Required of all graduate students whose terminal project is the graduate recital. May be repeated for credit.

591 Seminar in Advanced Choral Conducting and Interpretation (2)

Prerequisite: Music 391B, conducting experience or consent of instructor. Choral conducting techniques. Lab work with student groups and concert conducting. May be repeated for credit when offered with different course content.

592 Seminar in Advanced Instrumental Conducting and Interpretation (2)

Prerequisites: Music 392B, keyboard facility for score reading and consent of instructor. Conducting techniques. Interpretive problems of each period covered in lectures. May be repeated for credit.

597 Project (3)

Systematic study and report of a significant undertaking in the area of musical composition, musical performance, or other related creative activity. A written critical evaluation of the work or activity will be required.

598 Thesis (3)

Individual investigations of specific problems in the area of concentration by candidates for the M.A. degree.

599 Independent Graduate Research (1-3)

Prerequisites: graduate standing in music and consent of instructor. Research and study projects in areas of specialization beyond regularly offered coursework. Oral and written reports required.

Music Education Courses

299 Clinical Practice in Instrumental/Choral Techniques (1)

Clinical practice and field applications of instrumental/choral techniques classes, as in public and private schools. Coenrollment in Music 391B or 392B recommended. (3 hours weekly to be arranged in nearby school)

342 Practicum in School Materials and Techniques (3)

Corequisite: Music Education 399I or 399V. For the music education major. Experience in the use of musical materials, conducting, organization and management. Observation and application of rehearsal and classroom techniques.

399I Clinical Practice in Instrumental Conducting (1)

Prerequisite: Music Education 299. Clinical practice and field applications of concepts, materials and procedures as applied to field situations, as in public and private schools. Co-enrollment in Music Education 342.

399V Clinical Practice in Choral Conducting (1)

Prerequisite: Music Education 299. Clinical practice and field applications of concepts, materials and procedures as

applied to field situations, as in public and private schools. Co-enrollment in Music Education 342.

436 Orff Techniques for Children (3)

Methods and techniques influenced by Carl Orff in teaching music for children. Rhythmic speech, song and movement. (2 hours lecture, 1 hour activity)

441 Teaching General Music in Secondary Schools (3)

Prerequisite: admission to teacher education, senior standing or consent of instructor. Objectives, methods and materials for teaching general music or allied art-humanities classes in secondary schools, including their relationship to specialized instrumental and choral programs. Practical problems and field work are included.

442 Principles and Methods of Teaching Music in the Public Schools (3)

Prerequisite: admission to teacher education. History, principles of public education, grades K-12, with emphasis on music. Philosophy, methods, materials and procedures for organizing and teaching music in elementary and secondary schools. Must take concurrently with Ed-TE 440F and 440S.

449E Externship in Secondary Teaching (3)

Must be taken concurrently with Music Education 442. For candidates who have declared for the Ryan Act credential. See description and prerequisite under Division of Teacher Education.

449I Internship in Secondary Teaching (10)

For candidates who have declared for the Ryan Act credential. See description and prerequisite under Division of Teacher Education.

449S Seminar in Secondary Teaching (2)

Must be taken concurrently with Music Education 449I. For candidates who have declared for the Ryan Act credential. See description and prerequisites under Division of Teacher Education.

501 Contemporary Music Education (3)

Recent innovations and overview of the history, philosophy and methodology of the art of teaching music. Trends and applications of educational theory in relation to the teaching of music. Required for M.A. in Music Education.

542 Advanced Choral Techniques and Materials (2)

Open to music education majors with teaching experience. Study of techniques and materials needed for successful junior high and secondary choral music programs.

Department of Theatre and Dance

Department Chair: Joseph Arnold
Department Office: Performing Arts 157
Production Office: Performing Arts 126

Programs Offered

Bachelor of Arts in Theatre Arts

Dance
History and Theory
Production/Performance
Teaching

Master of Arts in Theatre Arts

Dramatic Literature and Criticism
Oral Interpretation
Playwriting
Television
Theatre for Children
Theatre History

Master of Fine Arts in Theatre Arts

Acting
Directing
Technical Theatre and Design

Secondary Teaching Credential

Faculty

Barbara Arms, Joseph Arnold, Bob Christianson, Don Finn, John Fisher, Susan Hallman, Donald Henry, Dean Hess, Lawrence Jasper, Robin Johnson, Gretchen Kanne, Gladys Kares, Alvin Keller, Araminta Little, Alex MacKenzie, William Meyer, Sallie Mitchell, S. Todd Muffatti, Jerry Pickering, Jose Quintero (Distinguished Visiting Professor), Deborah Slate, Ron Wood, James Young, Allen Zeltzer

INTRODUCTION

The Department of Theatre and Dance undergraduate and graduate programs include the fields of acting, dance, directing, musical theatre, oral interpretation, playwriting, technical production and design, television, theatre for children, theatre history and theory. Specifically, the course work and theatrical production activities are arranged to provide opportunities for students (1) to develop an appreciation for theatre arts; (2) to become aware, as audience or participants, of the shaping force of theatre arts in society; (3) to improve the knowledge and skills necessary for work in the theatrical arts as a profession; (4) to pursue graduate studies; and (5) to prepare for teaching theatre.

Public performance is at the center of the department's programs. Therefore, continuing stage, dance and television production activities are essential for all students at California State University, Fullerton, including the undergraduate and graduate theoretical student as well as the undergraduate pre-professional and graduate conservatory student. In conjunction with on-campus dance productions the Department of Theatre and Dance offers dancers and choreographers additional experience in its adjunct company: Dance Repertory Theatre. The company is made up of carefully selected California State University, Fullerton graduates and advanced students, chosen on the basis of demonstrated excellence in their work at the University. Dance Repertory Theatre presents lecture/demonstrations and performs locally, as well as scheduled tours throughout the year.

BACHELOR OF ARTS IN THEATRE ARTS

The concentration in History and Theory is for those who wish to study theatre as a cultural contribution or who wish to pursue graduate degrees in theatre with emphasis in theatre history and theory. It is strongly recommended that students electing this plan support the major with approved electives from art, music, foreign languages, literature, philosophy or speech.

The concentration in Production/Performance is designed to develop competency for pursuing the theatrical arts as a profession, or for pursuing graduate degrees in theatre with an emphasis in an area of concentration other than history of the theatre. Areas of emphasis are: acting, directing, musical theatre, oral interpretation, playwriting, technical theatre and television.

The concentration in Dance is designed to develop competency for pursuing dance as a profession or for pursuing a graduate degree in dance.

The concentration in Teaching meets the requirements of the teaching credential with specialization in secondary teaching.

In addition to the requirements listed below for the major, students must meet the other university requirements for a bachelor of arts degree. Students pursuing a concentration in Teaching must meet all specific requirements for the desired teaching credential. See description of secondary school teaching credential program under Department of Secondary Education. In addition, Plan III students should see the department's secondary education adviser regarding course sequence required for the single subject waiver. Those students who plan to work on the M.A. degree as well as the credential should see the chair of the Department of Theatre and Dance.

To qualify for a baccalaureate degree with a major in theatre, students must have a C or better in all theatre courses required for the degree. In addition to course requirements, all theatre and dance majors will enroll for two units of Theatre 478B each semester of residency up to a maximum of eight semesters. Students who wish to transfer, for credit in the major, courses equivalent to Theatre 200, 276A,B, 277, 284 and 285 must pass a transfer equivalency

examination in the specific courses. These examinations are administered at the beginning of each semester. Contact the Department office for the times at which the examinations will be administered.

Theatre 200, or its equivalent, is a prerequisite for all upper-division theatre courses with the exception of Theatre 478A,B. Transfer students may take Theatre 200 concurrently with their first semester of upper-division courses. Prior to entering their junior year, or upon transferring to Cal State Fullerton, all students electing an Acting emphasis under the Production/Performance concentration or the concentration in Dance will be evaluated and advised as to potential for advancement in the emphasis or concentration.

Theatre History and Theory Concentration

Lower Division: (15 units required)

- Theatre 110 Introduction to Oral Interpretation (3)
- Theatre 200 Art of the Theatre (3)
- Theatre 263 Acting (3)
- Theatre 276A Beginning Stagecraft (3)
- Theatre 277 Costume Fundamentals (3)

Upper Division: (42 units required)

- Theatre 310 Oral Interpretation of Shakespeare (3)
- Theatre 364 Seminar in Playwriting (3)
- Theatre 370A Fundamentals of Directing (3)
- Theatre 377 Stage Costuming (3)
- Theatre 386 Beginning Lighting (3)
- Theatre 388 Historical Styles for Scene Design (3)
- Theatre 475A,B,C,D,E World Theatre (15)
- Theatre 477A,B Seminar in Critical Techniques (6)
- Electives (3)

Production/Performance Concentration

Acting Emphasis—

Lower Division: (23 units required)

- Theatre 110 Introduction to Oral Interpretation (3)
- Theatre 200 Art of the Theatre (3)
- Theatre 241 Voice Production for the Performer (2)
- Theatre 251 Body Movement for the Actor (3)
- Theatre 263 Acting (3)
- Theatre 276A Beginning Stagecraft (3)
- Theatre 277 Costume Fundamentals (3)
- Theatre 285 Theatrical Makeup (3)

Upper Division: (35 units required)

- Theatre 310 Oral Interpretation of Shakespeare (3)
- Theatre 341 Advanced Voice Production for the Performer (2)
- Theatre 363A,B Acting (6)
- Theatre 370A Fundamentals of Directing (3)
- Theatre 463A,B Advanced Acting (6)
- Theatre 475A,B,C,D World Theatre (12)
- Theatre 482 Acting for Film and Television (3)

MASTER OF FINE ARTS IN THEATRE ARTS (TECHNICAL THEATRE/DESIGN, ACTING AND DIRECTING)

This degree is for students who wish professionally oriented education and training in design/technical theatre, acting, and directing. It is the objective of the department to educate and train highly skilled, motivated individuals for careers in professional theatre (including television and film) or for careers as artist-teachers in college or university theatre. Only those who demonstrate an exceptional talent, a high degree of motivation, and a deep commitment to their education and training will be admitted into the program. The highest academic and creative standards will be demanded throughout the program. A positive attitude and a rigid sense of theatre discipline are essential for success in the program.

The degree requires 60 units of approved course work. Average length of time to complete the program is two years.

Admission to Graduate Standing: Classified

Prerequisites for admission to the program and granting of classified standing are:

1. B.A., B.F.A. or M.A. from an accredited college or university with a major in theatre; or a degree in a related field and extensive work in technical theatre, acting, or directing.
2. Completion of an oral interview and satisfactory review of the student's portfolio or audition.
3. Acceptance by the faculty.
4. Minimum GPA of 3.0 in all upper-division undergraduate work in theatre. A minimum GPA of 2.75 for the last half of the undergraduate program is also required.
5. Completion of any additional prerequisites which may be required by the student's individual committee prior to classification.
6. Selection of a graduate adviser and committee. Total committee membership should be three or four faculty members, including the adviser.
7. Submission of a formal M.F.A. study program approved by the individual committee, the department graduate adviser and the dean of graduate studies.
8. Must meet the Graduate Writing Requirement.

Admission to Graduate Standing: Conditionally Classified

Students who do not meet certain prerequisites may be considered for admission in conditionally classified graduate standing. Consult the graduate program adviser.

M.F.A. Project

The M.F.A. program shall be culminated by two creative projects which, by their nature, are of sufficient challenge and complexity to be accepted as worthy completion of the two-year period of study. These projects, which shall be comparable to a professional undertaking, are determined by the individual committee and shall be design, acting or directing

assignments for major productions. Each project shall be reviewed by the individual committee within two weeks after completion. If accepted, the student shall submit a project book on one of these assignments within a specified time. Before the degree is granted, each student will pass an oral examination over the project book.

Study Plan—Acting

Course Requirements*

Units

Take all of the following: 39

- Theatre 443 Audition and Rehearsal Processes (3)
- Theatre 477A Seminar in Critical Techniques (3)
- Theatre 500 Intro to Graduate Studies (3)
- Theatre 563 Acting Studio (24)
- Theatre 575 Seminar in Theatre History (3)
- Theatre 583 Graduate Seminar: Acting (3)

Take one of the following: 3

- Theatre 436A Musical Theatre Workshop (3)
- Theatre 436B Musical Theatre Workshop (3)
- Theatre 482 Acting for Film and Television (3)
- Theatre 483 Advanced Acting Workshop (3)

Take dance elective (3) 3

Take 9 units adviser-approved electives 9

Complete two creative projects:

- Theatre 597 Project (6) 6
- Total 60

Study Plan—Directing

Course Requirements*

Units

Take all of the following: 48

- Theatre 436A Musical Theatre Workshop (3)
- Theatre 470A Advanced Directing (3)
- Theatre 470B Advanced Directing (3)
- Theatre 477A Seminar in Critical Tech (3)
- Theatre 484 Television Dramatic Tech (3)
- Theatre 500 Introduction to Graduate Studies (3)
- Theatre 563 Acting Studio (6)
- Theatre 570A,B Styles of Directing (12)
- Theatre 575 Seminar: Theatre History (3)
- Theatre 597 Graduate Project (6)
- Theatre 599 Independent Research (3)

Take 12 units adviser-approved electives 12

Total 60

Study Plan—Technical Theatre/Design

Students should concentrate their activities in two of the following four technical theatre areas during their two year course of study: scene design, costume design-makeup, lighting-sound, and technical production.

Course Requirements*

Units

Take all of the following: 9

- Theatre 477A Senior Seminar in Critical Techniques (3)
- Theatre 500 Introduction to Graduate Study (3)
- Theatre 575 Seminar in Theatre History (3)

Take nine units in the following: 9

- Theatre 566 Graduate Seminar: Stagecraft (3)
- Theatre 577 Graduate Seminar: Costuming (3)
- Theatre 578 Graduate Seminar: Scene Design (3)
- Theatre 586 Graduate Seminar: Lighting (3)

Take the following four times: 24

- Theatre 588 Design and Tech Theatre (6)

Choose 12 adviser-approved units from technical courses in theatre, art or engineering 12

Complete a creative project in two of the four technical areas: Theatre 597 Project (3) 6

Total 60

*Based on a student's previous undergraduate or professional experience, substitutions or revisions in the study plan might be appropriate.

Dance Courses

101 Introduction to Dance (3) (Formerly Theatre 101)

Historical and contemporary dance forms. Experiences in various dance forms such as ballet, modern, jazz, folk, Afro, mime. *Recommended for non-majors.*

112 Beginning Classical Ballet (2) (Formerly Theatre 112)

The fundamental structure and technique of classical ballet. May be repeated once for credit. (4 hours activity)

122A,B Beginning Modern Dance (2,2) (Formerly Theatre 122A,B)

Prerequisites: A is prerequisite to B. A—Exploration and manipulation of the instrument and materials of dance; development of aesthetic judgment. (4 hours activity)

B—Expansion of A via more complex technique and composition studies; development of performance quality. May be repeated once for credit. (4 hours activity)

126 Dance Improvisation (2) (Formerly Theatre 126)

Theory and practice of improvisation in movement. Practical use of improvisation in expressing imagery, developing choreographic concepts, and enhancing performance. (4 hours activity)

132 Beginning Jazz Dance (2) (Formerly Theatre 132)

Modern jazz dance techniques and basic jazz choreography. (4 hours activity)

142 Beginning Tap Dance (2) (Formerly Theatre 142)

Structure and technique of tap dance and tap choreography. (4 hours activity)

212 Intermediate Classical Ballet (2) (Formerly Theatre 212)

Prerequisites: Dance 112 and audition. Intermediate level technique of classical ballet. May be repeated once for credit. (4 hours activity)

222 Intermediate Modern Dance (3) (Formerly Theatre 222)

Prerequisites: Dance 122 and audition. Intermediate modern dance and movement vocabulary in terms of composition and communication. May be repeated for credit. (6 hours activity)

226 Rhythmic Analysis (3) (Formerly Theatre 226)

Musical form and structure; musically notating dance rhythms and percussion accompaniment.

232 Intermediate Jazz Dance (2) (Formerly Theatre 232)

Prerequisites: Dance 132 and consent of instructor. Intermediate level skills in jazz technique and choreography. (4 hours activity)

242 Intermediate Tap Dance (2) (Formerly Theatre 242)

Prerequisite: Dance 142 or consent of instructor. Intermediate skills in tap technique and choreography. (4 hours activity)

301 Dance and Cultural Diversity (3)

Prerequisites: Dance 101 or consent of instructor. Impact of various dance forms, from primitive time to modern, on diverse cultures. Contributions of immigrants, minorities and women to dance as a personal, social and cultural expression.

312 Advanced Classical Ballet (3) (Formerly Theatre 312)

Prerequisites: Dance 212 and audition. Stylization and performance of classical ballet. May be repeated once for credit. (6 hours activity)

322 Partnering Techniques (3) (Formerly Theatre 322)

Prerequisites: intermediate level in dance technique and consent of the instructor. The application of professional theories and principles of interrelationships in modern dance and ballet, including concepts of balance, counterweight and lifting. May be repeated once for credit. (6 hours activity)

323A,B Dance Composition (3,3) (Formerly Theatre 323A,B)

A—Prerequisites: Dance 122, 126, or equivalents. Study of basic elements and forms of dance composition.

B—Prerequisite: Dance 323A or consent of instructor. Problem solving studies in space, time, and energy, using choreographic devices in solo and group situations. Final project required. (6 hours activity)

324 Forces and Figures in Dance (3) (Formerly Theatre 324)

Prerequisite: consent of instructor. A history of dance from primitive times to the present.

332 Advanced Jazz Dance (3) (Formerly Theatre 332)

Prerequisites: Dance 232 and consent of instructor. Advanced jazz techniques and choreography through grade three of professional jazz dance. The relation of jazz to other forms of dance. (6 hours activity)

336A,B Dance for Musical Theatre (3,3) (Formerly Theatre 336A,B)

Prerequisites: Dance 112, 132, and audition, or consent of instructor. 336A is prerequisite to 336B. Dance utilized in musical theatre. A—Ensemble and individual approaches to the style. B—Choreography for musical theatre. (6 hours activity)

372 Dance Kinesiology (3) (Formerly Theatre 372)

Structural aspects of the human body and factors that affect movement in dance.

412 Classical Pointe (3) (Formerly Theatre 412)

Prerequisites: Dance 312 and consent of instructor. Techniques for performance of classical pointe. May be repeated once for credit. (6 hours activity)

422 Advanced Modern Dance (3) (Formerly Theatre 422)

Prerequisites: Dance 222 and audition. Advanced level skills in modern dance. Emphasis on individual techniques. May be repeated for credit. (6 hours activity)

423 Advanced Dance Composition (3) (Formerly Theatre 423)

Prerequisite: Dance 323A,B or equivalent. Elements and forms in dance composition. The choreographing of dances of concert quality. (6 hours activity)

- 424 Fundamentals of Dance Instruction (3)**
(Formerly Theatre 424)
Prerequisites: Dance 112, 222, 226, 323A, 372, and consent of instructor. Philosophies, techniques and methods for developing progressions in dance instruction.
- 471 Creative Dance for Children (3) (Formerly Theatre 471)**
Methods and materials for teaching creative dance/movement to children. Interrelated arts techniques (movement, music, drama, visual art) for teaching in the classroom and the dance class. (6 hours activity)
- 493 Dance Repertory and Performance (3)**
(Formerly Theatre 493)
Prerequisites: Dance 212 and 322. Learning and rehearsing choreography of established and/or new dance works with performance intent. May be repeated for credit. (6 hours activity)
- 497 Production and Performance Projects in Dance (1-3)**
Prerequisites: upper division standing and consent of instructor; *application form with appropriate signatures must be on file in department office prior to registration.* Projects which culminate in production or performance. May be repeated for credit.
- 499 Independent Study (1-3)**
Prerequisites: upper division standing and consent of instructor; *application form with appropriate signatures must be on file in department office prior to registration.* Undergraduate research projects. May be repeated for credit.
- 523 Graduate Projects in Choreography (3)**
(Formerly Theatre 523)
Prerequisite: Dance 423 or consent of instructor. Experiments in choreography using improvisation and innovative composition techniques. Environmental and sensorial experiences and studies in creativity and perception.

Theatre Courses

- 100 Introduction to the Theatre (3)**
For the general student leading to an appreciation and understanding of the theatre as an entertainment medium and as an art form. *Recommended for non-majors.*
- 110 Introduction to Oral Interpretation (3)**
The analysis and performance of literature by the interpreter.
- 163 Beginning Acting (3)**
The form and content of acting: improvisation, action, motivation, and behavior. *Recommended for non-majors.* (6 hours activity)
- 175 History of Western Theatre (3)**
A survey of theatre and Western civilization from the classical Greeks to the moderns. *Recommended for non-majors.*
- 180 Great Moments in Radio and TV (3)**
Presentation and analysis of radio and television programs from 1926 to the present, including guest artists from the radio and television industry.
- 184 Introduction to Radio and Television (3)**
The broadcasting industry and its impact and influence on our society. Broadcasting practices, audiences, production and programming.
- 200 Art of the Theatre (3)**
Theatre as an art form, involving the interrelated processes of playwriting, directing, acting, design and theatre management. Study of plays, films and television with emphasis on dramatic analysis and cultural significance. *Required of all theatre majors.*
- 206,AB Mime and Pantomime (3,3)**
Prerequisite: Theatre 206A is prerequisite for 206B. Individual development of creative skill in mime and pantomime. (6 hours activity)
- 241 Voice Production for the Performer (2)**
Use of voice in the theatre. Correction of speech faults and regional accents. Study of basic interpretive material. (4 hours activity)
- 251 Body Movement for the Actor (3)**
The body as an expressive instrument; acquiring of strength, flexibility, relaxation, control. The relationship of the body to the creative project. May be repeated for credit. (6 hours activity)
- 263 Acting (3)**
Improvisations, exercises, and techniques of acting for the stage. Motivation and behavior in characterization. (6 hours activity)
- 276A,B Beginning Stagecraft (3,3)**
Prerequisite: 276A is prerequisite to 276B. **A**—Planning and construction of stage and television scenery. Use of tools and stage equipment. **B**—Drafting and reading of technical drawings. *Work in the scene shop for department productions is required for A and B.* May be repeated for credit. (6 hours activity)
- 277 Costume Fundamentals (3)**
Costuming theatrical and television productions. Construction techniques, organization and duties of the costume crew. (6 hours activity)
- 284 Introduction to Television Production (3)**
The fundamentals of production for television. (6 hours activity)
- 285 Theatrical Makeup (3)**
Makeup for stage and television. Individual skill in character analysis, application in pigment, plastic, hair, makeup, and selection and use of makeup equipment. (6 hours activity)
- 288 Design for the Theatre (3)**
Scene design, including script analysis, formation of visual concepts, floor plan development and model building for stage and television. (6 hours activity)
- 310 Oral Interpretation of Shakespeare (3)**
Prerequisite: Upper division standing. Development of techniques for oral interpretation of Shakespeare with special emphasis on the problems of verse.
- 341 Advanced Voice Production for the Performer (2)**
Prerequisites: Theatre 241. Intensive individual voice and speech training for the actor and oral interpreter. Projects involving theatrical material will focus on specific problems. May be repeated for credit. (4 hours activity)
- 343 Dialects for Actors (3)**
Prerequisite: Theatre 241 or consent of instructor. Dialects and accents for theatrical performance. Source materials, analysis, and application to scripted material. (6 hours activity)

- 350 Stage Management (2)**
Prerequisite: Theatre 370A. Backstage management, including interrelationships of production personnel for stage and television.
- 363A,B Acting (3,3)**
Prerequisites: Theatre 241, 251, 263 and audition. Characterization; roles, special problems, and application of acting techniques through exercises and two-character scenes from the contemporary theatre. (6 hours activity)
- 364 Seminar in Playwriting (3)**
Prerequisites: evidence of interest in creative writing and consent of instructor. Study of superior models, development of style, and group criticism and evaluation of independent work, as it relates to playwriting. May be repeated for credit.
- 365 Television / Film Writing (3)**
The writing of scripts and other forms of continuity for television/film. May be repeated for credit.
- 370A,B Fundamentals of Directing (3,3)**
Prerequisites: Theatre 263, or consent of instructor. 370A is prerequisite to B. Prehearsal problems and procedures, structural analysis of plays, composition, picturization, pantomimic dramatization, movement and rhythm on stage and in television. Practice in directing scenes. (6 hours activity)
- 377 Stage Costuming (3)**
Fashions and textiles of major historical periods, methods of research; interpretation and communication of historical dress for theatrical statement.
- 379 Rendering for the Theatre (3)**
Scenic and costume sketching and rendering for communication between production director and designers. Full scale costume and scenic painting required. Theoretical and actual production idea presentation and execution. (6 hours activity)
- 381 Radio and Television Announcing (3)**
Prerequisite: Theatre 110. Control room operation, including practice in microphone and camera techniques. (6 hours activity)
- 384 Television Production and Direction (3)**
Prerequisites: Theatre 284. Theory and practice in the production of television programs and announcements: the planning, organizing, directing, rehearsing, performing, recording and editing of television programs and announcements. (6 hours activity)
- 385 Advanced Theatre Makeup (3)**
Prerequisite: Theatre 285. Problems in makeup including special techniques and materials: prosthetics, hairpieces, and masks for stage and television productions. (6 hours activity)
- 386 Beginning Lighting (3)**
Theories of lighting for stage and television productions. (6 hours activity)
- 387 Audio Techniques (3)**
Practice necessary to integrate live and recorded sound into performing arts productions. Recording, reproduction and studio techniques. (6 hours activity)
- 388 Historical Styles for Scene Design (3)**
Visual survey through lecture and slides of architecture, interior design and furniture from ancient to modern times. Provides necessary basis for advanced design course.
- 400 Theatre Internship (3)**
Consent of appropriate faculty supervisor. Supervised work experience in all areas of theatre to expand the dimensions of the classroom by integrating the formal academic training with direct application. Periodic seminar meetings to discuss work.
- 402A,B Dramatic Activities for Children (3,3)**
Prerequisite: Consent of instructor. Creative dramatics as a tool for building and developing creative and socialized processes in children. **A**—Sense memory, movement/ mime, dialogue, characterization, dramatization. **B**—Teaching techniques including concentration, imagination, dramatization, and improvisation for older children. (6 hours activity)
- 403A,B Theatre for Children (3,3)**
Prerequisite: 403A prerequisite for 403B or consent of instructor. Theatrical production for an audience of children. **A**—Philosophy, theory and practice; **B**—Application of production principles. (6 hours activity)
- 410A Oral Interpretation of Prose Literature (3)**
Prerequisite: upper division standing. Criticism and performance in the oral interpretation of prose literature.
- 410B Oral Interpretation of Poetry (3)**
Prerequisite: upper division standing. Criticism and performance in the oral interpretation of poetry.
- 410C Oral Interpretation of Drama (3)**
Prerequisite: upper division standing. Criticism and performance in the oral interpretation of drama.
- 411 Oral Interpretation of Children's Literature (3)**
Prerequisite: upper division standing. Oral presentation of children's literature in classroom, recreation and home situations including individual and group performance of fiction, non-fiction, fantasy and poetry.
- 414 Readers Theatre (3)**
Prerequisite: Theatre 110 or consent of instructor. The interpretation of literature in the medium of readers theatre. May be repeated for credit.
- 436A,B Musical Theatre Workshop (3,3)**
Prerequisites: Theatre 363B, Dance 336A,B, and audition. Theatre 436A prerequisite to B. Roles and excerpts from musical theatre: the musical, dramatic, language and dance techniques. Scenes and musical numbers in workshop. **A**—Large group and solo work. **B**—Small group and audition material preparation. (6 hours activity)
- 443 Audition and Rehearsal Processes (3)**
Prerequisites: Theatre 363A,B. Auditioning and rehearsal processes for professional work in theatre, television and film. Includes techniques for selecting material and performance preparation. (6 hours activity)
- 450 Theatre Management (3)**
Organizational principles of front-of-house and box office operation. Participation in School of the Arts public presentations. (3 hours lecture, 6 hours activity)
- 463A,B Advanced Acting (3,3)**
Prerequisites: Theatre 310, Theatre 363A,B and audition. Historical theories and techniques of styles of acting. **A**—Greek through renaissance periods. **B**—The neoclassic periods to contemporary styles. (6 hours activity)

470A,B Advanced Directing (3,3)

Prerequisites: Theatre 288, 350, and 370A,B, or consent of instructor. Readings in theory, analysis of scripts and practice in directing plays for their oral and visual value as theatre. **A**—Each student directs a one-act play. **B**—Each student directs two one-act plays or equivalent. (6 hours activity)

475A,B,C,D,E World Theatre (3,3,3,3,3)

Prerequisite: upper-division standing. The historical and dramatic evolution of world theatre. **A**—Ancient Greece and Rome, Middle Ages; Italian renaissance; **B**—England from 1558-1790; 16th- and 17th-century Spain and France; **C**—18th- and 19th-century Europe and Russia; 19th-century England; **D**—18th- and 19th-century America; the Orient; the modern world; **E**—Historical background and contemporary view of the musical theatre.

477A,B Senior Seminar in Critical Techniques (3,3)

Theatre 477A or consent of instructor prerequisite to 477B. **A**—Major critical theories in theatre. **B**—Application of critical theories to local dramatic productions. Theatre 477B fulfills the course requirement of the university upper-division baccalaureate writing requirement for theatre arts majors.

478A,B Production and Performance (2,2)

A—Acting in stage or television performances. **B**—Technical crew work on stage or television performances. One section of 478B per semester required of all theatre majors as well as non-majors cast in theatre department productions. (More than 6 hours activity)

482 Acting for Film and Television (3)

Prerequisites: Theatre 363A,B. The adaptation of stage techniques for the camera; audition, rehearsal, and final performance, utilizing videotape and studio equipment. (6 hours activity)

483 Advanced Acting Workshop (3)

Prerequisites: Theatre 463A,B and audition. Extensive scene study, based on particular needs and problem areas of the advanced acting student. (6 hours activity)

484 Television Dramatic Techniques (3)

Prerequisites: Theatre 384 and consent of instructor. Techniques of production for the director, actor and designer in televised drama. (6 hours activity)

486 Advanced Lighting (3)

Prerequisites: Theatre 386 or consent of instructor. Design and technology of lighting for the stage and television. (6 hours activity) May be repeated for credit.

487 Advanced Audio Techniques (3)

Prerequisite: Theatre 387 or consent of instructor. Advanced problems in the design and technology of live and recorded sound used in the performing arts. (6 hours activity)

488 Advanced Design and Technology (3)

Prerequisites: Theatre 276A,B, 277, 288 and consent of instructor. Advanced design, coordination of scenery and/or costume design projects for various types of theatres and television. May be repeated for credit.

490 Television/Film Aesthetics and Criticism (3)

Prerequisites: Theatre 384 or consent of instructor. The nature of film and television; aesthetic and theoretical and critical bases for film and television evaluation and understanding.

494 Cable Television Production Workshop (3)

Prerequisites: six units of television production and consent of instructor. Practical experience in the creation of full-length television dramatic productions for cable broadcasting. May be repeated for credit. (6 hours activity)

497 Production and Performance Projects in Theatre (1-3)

Prerequisites: upper division standing and consent of instructor; *application form with appropriate signatures must be on file in department office prior to registration.* Projects which culminate in production or performance. May be repeated for credit.

499 Independent Study (1-3)

Prerequisites: upper division standing and consent of instructor; *application form with appropriate signatures must be on file in department office prior to registration.* Undergraduate research projects. May be repeated for credit.

500 Introduction to Graduate Study in Theatre (3)

Methodological problems in graduate research. Location of source materials, including library and original data; interpretation of research and practice in scholarly writing. *Must be taken the first semester after admission to graduate study.*

501 Graduate Seminar: Advanced Theatre Theory (3)

Prerequisite: Theatre 500. Directed research; the relationship between historical backgrounds and developments in the theatre and the student's area of concentration.

503 Graduate Seminar: Theatre for Children (3)

Prerequisite: Theatre 403A or consent of instructor. Philosophies, theories, techniques and trends of the art of theatre for children. Problems related to the use of materials in educational, community and professional children's theatres.

510 Graduate Seminar: Oral Interpretation (3)

Historical and philosophical development of oral interpretation and its relationship to contemporary theory and practice.

550 Production Planning in Theatre Arts (3)

Production problems in theatre arts. Planning the production within the limitations of budgets and physical facilities.

563 Acting Studio (6)

Prerequisite: audition. Re-creation and interpretation of roles utilizing period and contemporary dramatic literature, interrelating voice, movement, characterization and period style acting. *Enrollment limited to M.F.A. students.*

566 Graduate Seminar: Stagecraft (3)

Prerequisite: consent of instructor. Advanced theories in the preparation and installation of scenery for theatrical production; engineering drawings, exploration of materials, and research into new methods of theatre technology. May be repeated for credit up to six units.

570A,B Styles of Directing (3,3)

Prerequisites: Theatre 470A,B or consent of instructor. Research in the theories of directing styles and practice in directing period plays. **A**—Staging problems from Greek tragedy through the Restoration. **B**—Staging problems from recent classical work (Ibsen, Strindberg, Chekhov) to present. May be repeated once for credit.

573 Seminar in Dramatic Literature (3)

Directed research and criticism in the examination of contributions of major dramatists or dramatic genres. Emphasis

on dramatic analysis. Topic will vary from semester to semester. May be repeated for credit.

575 Seminar in Theatre History (3)

Directed research and criticism in the examination of a significant historical period or movement in theatre history. Topic will vary from semester to semester. May be repeated for credit.

577 Graduate Seminar: Costuming (3)

Prerequisite: consent of instructor. Costume production problems and their solutions. Examination of specific designers, past and present. Research in practical methods of interpreting the designer's sketch. May be repeated for credit up to six units.

578 Graduate Seminar: Scene Design (3)

Prerequisite: consent of instructor. Scenic design projects involving in-depth production style and scheme development. May be repeated for credit up to six units.

583 Graduate Seminar: Acting (3)

Prerequisites: Theatre 463A,B. Investigation and delineation of current acting methods as techniques for solving problems presented by popular dramatic literature. Development of a personal acting philosophy and methodology. May be repeated once for credit.

586 Graduate Seminar: Lighting Design (3)

Prerequisite: consent of instructor. Advanced theoretical lighting design projects. Production problems and their solutions. Examination of specific designers, past and present. May be repeated for credit up to six units.

588 Graduate Projects in Design and Technical Theatre (6)

Theoretical projects and designs for productions prior to final projects. Faculty and student critiques. Tailored to individual student needs. *Enrollment limited to M.F.A. students.*

597 Project (1-3)

Prerequisites: consent of instructor, student's graduate committee and department executive committee. Development and presentation of a creative project beyond regularly offered coursework. May be repeated for credit up to six units. *Student must complete course application form by the end of the seventh week of the semester preceding that in which the work is to be done.*

598 Thesis (3)

Prerequisites: consent of student's graduate committee; *application form with appropriate signatures must be on file in department office prior to registration.* Development and presentation of a thesis in the student's area of concentration.

599 Independent Graduate Research (1-3)

Prerequisites: consent of student's graduate committee and instructor; *application form with appropriate signatures must be on file in department office prior to registration.* Research in theatre. May be repeated for credit.

Theatre Education Courses

442 Teaching Theatre in the Secondary School (3)

Prerequisite: admission to teacher education. Objectives, methods and materials for teaching in the secondary school.

449E Externship in Secondary Teaching (3)

See description under Department of Secondary Education.

449I Internship in Secondary Teaching (10)

See description under Department of Secondary Education.

449S Seminar in Secondary Teaching (2)

See description under Department of Secondary Education.

School of Business Administration and Economics

Dean: Thomas L. Brown

Associate Deans:

Ken Goldin, Undergraduate Programs

Paul Hugstad, Graduate Programs

Programs Offered

Bachelor of Arts in Business Administration

Concentrations in:

- Accounting
- Business Economics
- Finance
- Management
- Management Information Systems
- Management Science
- Marketing

Bachelor of Arts in Economics

Bachelor of Arts in International Business

Concentrations in:

- French
- German
- Japanese
- Portuguese
- Spanish
- Other Languages

Minor in Business Administration

Minor in Economics

Minor in Management Information Systems

Master of Science in Accountancy

Master of Business Administration

Concentrations in:

- Accounting
- Business Economics
- Finance
- International Business
- Management
- Management Science
- Marketing

Master of Arts in Economics

Master of Science in Management Science

Concentrations in:

- Management Information Systems
- Operations Research
- Statistics

Master of Science in Taxation

INTRODUCTION

Programs of study in the School of Business Administration and Economics equip men and women with the intellectual and professional tools needed to assume responsible positions in business, industry, education, government, and social service. The school offers a broad exposure to business administration and economics. Behavioral and quantitative sciences are studied in both theoretical and applied contexts. Mathematics is used as a key tool in the analysis of complex problems and in the interpretation of data. Emphasis is placed on effective oral and written communication. Students are made aware of the need for imaginative, innovative solutions to business problems that encompass human needs and ethical objectives.

The school also offers the opportunity to develop technical expertise in a chosen discipline at a beginning professional level acceptable to prospective employers. Seven concentrations are offered within the business administration major as well as an economics major, an international business major and a business education credential program.

The School of Business Administration and Economics offers the only programs in Orange County accredited by the American Assembly of Collegiate Schools of Business. Accreditation assures a rigorous course of study covering the full spectrum of business administration. It also indicates a well-qualified faculty, high standards for students, and access to an extensive library system.

Preparation for Undergraduate Degree Programs

Algebra and geometry are necessary for many required business courses. The equivalent of three years of high school mathematics, including a second course in algebra, is the prerequisite for the required Math 135, Business Calculus. Students without the necessary background should enroll in Math 100, Precalculus Mathematics.

Proficiency in written English is necessary to pass the Cal State Fullerton Examination in Writing Proficiency (EWP) and the required course Business Administration 301, Business Writing. Students without adequate writing skills should enroll in Communications 103, Applied Writing; English 101, Beginning College Writing; English 106, Writing for ESL Students; Foreign Language Education 105A,B, English as a Second Language; or Business Administration 301, Business Writing.

Business students are encouraged to take courses in sociology, psychology, anthropology, speech communication, political science, history, philosophy, geography and foreign languages. Many courses in these fields may be used to meet the general education requirement. For the international business degree, intermediate level competency in a foreign language, equivalent to Foreign Language 204 courses, is prerequisite to the required concentration courses. It is strongly recommended that students planning to major in international business complete a minimum of three years of foreign language study while in high school.

Transfer Credit for Business and Economics Courses

Students should see an adviser immediately regarding transfer credit. In order to meet the requirements of any major or minor in the School of Business Administration and Economics, each transfer course must have a minimum C grade. Lower-division courses taken at four-year institutions and all courses taken at two-year colleges may be used to satisfy only lower-division (i.e., 100 and 200 level) requirements at the university. Upper-division courses taken at four-year institutions may be used to satisfy upper division (i.e., 300 and 400 level) requirements at the university. Lists of approved courses are available in the Business Advising Center; other courses are subject to approval by the department chair concerned. In all cases, courses must be transferred from an appropriately accredited institution. If the institution is located outside the Southern California area, the student should supply catalog descriptions, course outlines and textbook titles. In most cases, courses taken in the extension division of a university, or by correspondence, are not acceptable.

Admission to the Business Administration Major

Admission to the major involves two steps. Students who apply for the major are initially classified as *Prebusiness*. After completing lower division prerequisite requirements, students are advanced to the *Business Administration major*. Prebusiness students may take lower division business courses, but most upper division business courses are not open to Prebusiness students.

Business Advising Center Langsdorf Hall, Room 700

Undergraduate Program Advising

The Business Advising Center serves business administration, economics and international business majors. Information is available on admissions, curriculum and graduation requirements, as well as on registration and grading procedures, residence and similar academic matters. *Transfer students should see an adviser immediately regarding transfer credit.* For information on general education, consult the Academic Advisement Center in the Humanities Building.

Graduate Program Advising

The graduate adviser (in the Business Advising Center) provides academic advising for the graduate programs in accountancy, business administration, economics, management science and taxation. Information is available on admissions, curriculum and graduation requirements, as well as on registration procedures, residence and similar academic matters. Students *also* should consult the faculty coordinators for the programs in accountancy, economics, management science and taxation.

Internships and Cooperative Education

Students may earn academic credit, first-hand work experience and financial remuneration as well. Opportunities exist in accounting and auditing; cost-benefit analysis and econometrics; finance and real estate; insurance and banking; management and industrial relations; marketing, sales and advertising; and business data systems. For more information, consult the internship adviser in your department or in the Center for Internships and Cooperative Education.

Student Organizations

Chapters of the following national honor societies have been established on campus with membership open to qualified students: Beta Alpha Psi (accounting), Beta Gamma Sigma (business), Delta Sigma Pi (business), Financial Management Association Honor Society (finance), Omicron Delta Epsilon (economics), Phi Kappa Phi (all-campus), Pi Sigma Epsilon (marketing). In addition there are the following clubs which students are encouraged to join: Accounting Society, AIESEC, Black Business Students, Circle K (management), Data Processing Management Association, Economics Association, Finance Association, Inter-Club Council, Marketing Club, Personnel and Industrial Relations Association, Personnel Management Association of Aztlan, Rho Epsilon (real estate-finance), Securities and Investment Association, Society for the Advancement of Management and The Institute of Management Science.

Prizes in Business Administration and Economics

Stephen J. Barres Leadership Award

Theodore H. Smith Outstanding Graduate Student Award

Advisory Board Award: Outstanding Student

Advisory Board Award: Outstanding Faculty

R. C. Baker Foundation Scholarships

Farmers Insurance Group Scholarships

Friends of the School of Business Administration and Economics Scholarships

Irvine Company Scholarship

Council of Alumni MBA Student Scholarship

See also awards listed under each department.

Computer Facilities

The CSUF Computer Center in McCarthy Hall and the SBAE Satellite Computer Laboratory in Langsdorf Hall are available for student use. Facilities include terminals (which access the campus' main computers), microcomputers, and printers. Computer facilities are generally available evenings and weekends during the school year.

Information on the Degree Requirements

Accountancy, Master of Science

See "Department of Accounting"

Business Administration, Bachelor of Arts

Business Administration, Master of

Business Administration, Minor

See "Business Administration Degrees"

Economics, Bachelor of Arts

Economics, Master of Arts

Economics, Minor

See "Department of Economics"

International Business, Bachelor of Arts

See "International Business Program"

Management Information Systems, Minor

See "Management Information Systems"

Management Science, Master of Science

See "Department of Management Science"

Taxation, Master of Science

See "Department of Accounting"



Department of Accounting

Department Chair: Trini Melcher
Department Office: Langsdorf Hall 630

Programs Offered

Bachelor of Arts in Business Administration

Concentration in Accounting

Master of Science in Accountancy

Master of Business Administration

Concentration in Accounting

Master of Science in Taxation

Faculty

Gene Bennett, Hal Brand, Jack Coleman,
Eugene Corman, Mary Fleming, Clyde Hardman,
A. Jay Hirsch, Jodha Khalsa, K.J. Kim,
Norbert Maler, Trini Melcher, Robert Miller,
Nona Mooers, Shirish Seth, Randy Swad,
Anita Tyra, Robert Vanasse, Dorsey Wiseman

Advisers

The Business Advising Center, Langsdorf Hall 700, provides information on admissions, curriculum and graduation requirements; registration and grading procedures; residence and similar academic matters. In addition, the Accounting Department provides advising on curriculum content and career opportunities:

Accounting
CPA Examination
Taxation

Trini Melcher
Robert Vanasse
Clyde Hardman

INTRODUCTION

Accounting is often referred to as "the language of business." Very generally, the accounting process is concerned with recording, classifying, reporting and interpreting the economic data of an organization. These data are important to users, who may include managers, investors and other interested groups. Accounting helps in decision-making processes by showing how money has been spent and where commitments have been made, by judging performance and by showing the implications of following different courses of action. Reliable information in a dynamic business environment is necessary for sound decisions concerning the allocation of scarce resources. Thus accounting plays a very significant part in our social and economic systems.

Programs in accounting are designed for students who are interested in careers in public accounting, industry, government, or social accounting, and for students who intend to work for advanced degrees in accounting in preparation for teaching and research.

Credential Information

The Department of Accounting offers courses which may be included in the Single Subject Waiver Program in Business. Further information on the requirements for teaching credentials is contained in the Teacher Credential Programs section of this catalog.

Prizes in Accounting

Outstanding Senior Award
Amy Vanasse Memorial Award
Arthur Andersen & Co.
Arthur Young & Company
Becker CPA Review
Coopers & Lybrand
CSUF CPA Review
Dauberman CPA Review
Deloitte Haskins & Sells
Ernst & Whinney
Grant Thornton Co.
Kenneth Leventhal & Co.
KMG Main Hurdman
McGladrey Hendrickson & Pullen
National Association of Accountants, O.C. Chapter
Peat, Marwick, Mitchell & Co.
Price Waterhouse
Robert Half Co.
Society of Accountants—O.C. Chapter
Touche Ross & Co.
USC CPA Review
Vilmure, Peeler & Boucher

BACHELOR OF ARTS IN BUSINESS ADMINISTRATION

See "Business Administration Degrees, Accounting Concentration."

MASTER OF SCIENCE IN ACCOUNTANCY

The Master of Science in Accountancy program provides the conceptual understanding and technical competence for a career in professional accounting. Employment opportunities include public accounting, industrial accounting and government. The program encompasses both a theoretical foundation and technical skills. Emphasis is placed on the development of a professional attitude and the capacity to deal with issues of accounting policy and ethics. Graduates should be prepared for entry-level positions, and for potential advancement in the profession.

The M.S. in Accountancy program is *scheduled* especially for students who are employed full time. Courses are offered during the late afternoon and evening. Most students enroll on a part-time basis, taking two courses (6 units) per semester.

The *curriculum* is designed for students with an undergraduate degree in business administration with a concentration in accounting. The 10 courses (30 units) may be completed in one year (full time) or 2 1/2 years (part time). In addition to seven accounting courses, there are two electives and a terminal, research-project course.

Cal State Fullerton is the only university in Orange County accredited by the American Assembly of Collegiate Schools of Business. This assures a rig-

orous program, a well qualified faculty, high standards for students, and access to an extensive library system. The qualifications of the M.S. in

Accountancy faculty include advanced degrees in taxation, accounting, and law; practical tax experience; and professional standing as CPA's and attorneys.

Most *graduate courses* require "classified SBAE status" and are open only to students with classified standing in the M.B.A., M.S. in Accountancy, M.S. in Taxation, M.S. in Management Science, or M.A. in Economics programs.

Admission

Students meeting the following requirements will be admitted to *postbaccalaureate unclassified* standing.

1. Acceptable bachelor's degree from an institution accredited by a regional accrediting association, or equivalent.
2. Grade-point average of at least 2.5 in the last 60 semester units attempted and in good standing at the last college attended.

Note: Postbaccalaureate unclassified students may enroll in undergraduate courses (100 through 400 level) but generally are ineligible for graduate business courses (500 level). Such students may wish to take undergraduate courses which are necessary to meet the requirements for classified standing (see below). Upon completing the requirements, the student may file an "Application for Change of Academic Objective—Graduate" requesting admission to the M.S. in Accountancy program. Admission as a postbaccalaureate unclassified student *does not* constitute admission to the M.S. in Accountancy program, does not confer priority, nor does it guarantee future admission. Students planning to apply for admission to the M.S. in Accountancy program should confer with the graduate adviser in the School of Business Administration and Economics.

Students meeting the following *additional* requirements may be admitted to the M.S. in Accountancy program with conditionally classified standing:

3. Combination of GPA and score on the Graduate Management Admission Test (GMAT) sufficient to yield a score of at least 950 according to one of the following formulas. *Due to limited facilities and resources in the School of Business Administration and Economics, a higher score may be required of all applicants.*
 - A. If overall undergraduate GPA is at least 2.5 and GMAT is at least 450, then score = (GPA x 200) + GMAT.
 - B. If overall undergraduate GPA is below 2.5 or GMAT is below 450, then score = (GPA x 200) + GMAT - 50.
 - C. If GPA is based on the last 60 semester units of course work* then score = (GPA x 200) + GMAT - 100.

* All work within any given quarter or semester must be included even though that will result in more than 60 semester units. The units to be included in the last 60 semester units may come only from the fol-

lowing: (1) work taken in postbaccalaureate status during the last seven years toward fulfilling M.S. in Accountancy course work requirements; (2) units taken under a prescribed remedial program agreed to by the associate dean, School of Business Administration and Economics; (3) units earned prior to the bachelor's degree.

Note: To be admitted as conditionally classified students, applicants must be within three courses (or 10 units) of meeting the requirements for classified standing (see below). Such courses must be completed within the first 12 months of study. Students who do not do so will not be allowed to continue in the program. Conditionally classified students may take a limited number of graduate courses (500 level) subject to the approval of the graduate adviser of the School of Business Administration and Economics. *Applicants with a bachelor's degree in a field other than business administration* (or whose deficiency is greater than three courses) should apply for the Master of Business Administration program. Upon completion of the M.B.A. foundation courses and Business Administration 595 (or 596), an application for a change of objective may be filed for transfer to the M.S. in Accountancy program.

Students meeting the following *additional* requirements will be advanced to classified standing. Such students are eligible to take graduate courses for which they qualify.

4. A bachelor's degree with a major in business administration and a concentration in accounting which meets the requirements stated in this catalog for such degrees. The degree must include calculus and computer programming equivalent to passing Mathematics 135, Business Calculus (3 units), and Management Science 264, Introduction to Computer Programming (2 units), with a minimum C grade. Courses in the major are to be no more than seven years old, and courses in the accounting concentration no more than five years old. Courses in the major (including the accounting concentration) must have at least a 3.0 (B) GPA. Courses with grades lower than C must be repeated.

5. Approval of study plan.

Curriculum

The curriculum requires 30 semester units of course work beyond the baccalaureate degree. A GPA of 3.0 (B) is required. Any study plan course in which a D is received must be repeated and must receive at least a C grade regardless of the overall GPA of the student.

Required Courses

- Accounting 502 Seminar in Accounting Theory (3)
- Accounting 503 Seminar in Contemporary Accounting Problems (3)
- Accounting 505 Seminar in Auditing (3)
- Accounting 506 Seminar in Professional Communications (3)
- Accounting 507 Seminar in Acctg. Information Systems (3)
- Accounting 521 Seminar in Admin. Accounting (3)

Accounting 572 Seminar in Taxation of Corporations and Shareholders (3)

Electives in Accounting or Related Business Fields

Two courses (6 units) at the 400 or 500 level, to be selected in consultation with, and approved by, the program coordinator.

Terminal Evaluation

Accounting 597 Project (3)

MASTER OF BUSINESS ADMINISTRATION

See "Business Administration Degrees, Accounting Concentration."

MASTER OF SCIENCE IN TAXATION

The Master of Science in Taxation program provides the conceptual understanding and technical competence for a career in taxation. Employment opportunities include the tax departments of CPA and law firms, as well as corporations and government tax agencies. For those already employed in this field, the M.S. in Taxation program should meet the continuing education requirements of professional associations and licensing boards.

The M.S. in Taxation program is *scheduled* especially for students who are employed full time. Courses are offered during the late afternoon and evening. Most students enroll on a part-time basis, taking two courses (6 units) per semester.

The *curriculum* is designed for students with an undergraduate degree in business administration. The 10 courses (30 units) may be completed in one year (full time) or 2 1/2 years (part time). In addition to six courses in the field of taxation, there are three electives and a terminal, research-project course.

Cal State Fullerton is the only university in Orange County *accredited by the American Assembly of Collegiate Schools of Business*. This assures a rigorous program, a well qualified faculty, high standards for students, and access to an extensive library system. The qualifications of the M.S. in Taxation faculty include advanced degrees in taxation, accounting, and law; practical tax experience; and professional standing as CPA's and attorneys.

Most *graduate courses* in the School of Business Administration and Economics require "classified SBAE status" and are open only to students with classified standing in the M.B.A., M.S. in Accountancy, M.S. in Taxation, M.S. in Management Science, or M.A. in Economics programs.

Admission

Students meeting the following requirements will be admitted to *postbaccalaureate unclassified* standing:

1. Acceptable bachelor's degree from an institution accredited by a regional accrediting association, or equivalent.
2. Grade-point average of at least 2.5 in the last 60 semester units attempted and in good standing at last college attended.

Note: Postbaccalaureate unclassified students may enroll in undergraduate courses (100 thru 400 level) but are generally ineligible for graduate business courses (500 level). Such students may wish to take undergraduate courses which are necessary to meet the requirements for classified standing (see below). Upon completing the requirements, the student may file an "Application for Change of Academic Objective/Graduate" requesting admission to the M.S. in Taxation program. Admission to the university as a postbaccalaureate unclassified student *does not* constitute admission to the M.S. in Taxation program, does not confer priority, nor does it guarantee future admission. Students planning to apply for admission to the M.S. in Taxation program should confer with the graduate adviser in the School of Business Administration and Economics.

Students meeting the following *additional* requirements will be admitted to the M.S. in Taxation program with conditionally classified standing:

3. Combination of GPA and score on the Graduate Management Admission Test (GMAT) sufficient to yield a score of at least 950 according to one of the following formulas. Due to limited facilities and resources in the School of Business Administration and Economics, a higher score may be required of all applicants.

A. If overall undergraduate GPA is at least 2.5 and GMAT is at least 450, then score = $(\text{GPA} \times 200) + \text{GMAT}$.

B. If overall undergraduate GPA is below 2.5 or GMAT is below 450, then score = $(\text{GPA} \times 200) + \text{GMAT} - 50$.

C. If GPA is based on the last 60 semester units of course work* then score = $(\text{GPA} \times 200) + \text{GMAT} - 100$.

* All work within any given quarter or semester must be included even though that will result in more than 60 semester units. The units to be included in the last 60 semester units may come only from the following: (1) work taken in postbaccalaureate status during the last seven years toward fulfilling M.S. in Taxation course work requirements; (2) units taken under a prescribed remedial program agreed to by the Associate Dean, School of Business Administration and Economics; (3) units earned prior to the bachelor's degree.

Note: To be admitted as conditionally classified students, applicants must be within three courses (or 10 units) of meeting the requirements for classified standing (see below). Such courses must be completed within the first 12 months of study. Students who do not do so will not be allowed to continue in the program. Conditionally classified students may take a limited number of graduate courses (500 level) subject to the approval of the graduate adviser of the School of Business Administration and Economics. Applicants with a bachelor's degree in a field other than business administration (or whose deficiency is greater than three courses) should apply for the Master of Business Administration program. Upon completion of the M.B.A. foundation courses and Business Administration 595 (or 596), an application for a change of objective may be filed for transfer to the M.S. in Taxation program.

(Note: The requirement of Business Administration 595 or 596 does not apply to students admitted to the program in fall 1983 or earlier.)

Students meeting the following *additional* requirements will be advanced to classified standing. Such students are eligible to take graduate courses for which they qualify.

4. A bachelor's degree with a major in business administration which meets the requirements stated in this catalog for such degrees, and Accounting 308, Concepts of Federal Income Tax Accounting (or an equivalent course or work experience). The degree must include calculus and computer programming equivalent to passing Mathematics 135, Business Calculus (3 units), and Management Science 264, Introduction to Computer Programming (2 units), with grades of at least C. Courses in the major are to be no more than seven years old and must have at least a 3.0 (B) GPA. Courses with grades lower than C must be repeated.

5. Approval of study plan.

Curriculum

The curriculum requires 30 semester units of course work beyond the baccalaureate degree. At least 21 of the 30 units required for the degree must be at the graduate level. A GPA of 3.0 (B) is required. Any study plan course in which a D is received must be repeated and must receive at least a C grade regardless of the overall GPA of the student.

Required Tax Course

Accounting 470 Tax Research, Practice and Procedures (3)

Electives in Taxation and Related Fields

Five courses (15 units) to be selected in consultation with, and approved by, the student's adviser.

Available courses include but are not limited to:

Accounting 408	Problems in Taxation (3)
Accounting 508	Seminar in Tax Planning (3)
Accounting 572	Seminar in Taxation of Corporations and Shareholders (3)
Accounting 573	Seminar in Taxation of Property Transactions (3)
Accounting 574	Seminar in Taxation of International Business Operations (3)
Accounting 575	Seminar in Estate, Gift and Inheritance Taxes and Estate Planning (3)
Accounting 576	Seminar in State & Local Taxation (3)
Accounting 577	Seminar in Taxation of Employee Compensation (3)
Accounting 578	Seminar in Taxation of Partnerships (3)

Other Electives

Courses are to be selected in consultation with, and approved by, the student's adviser.

One course (3 units) in either economics or political science and two courses (6 units) in either business or non-business fields.

Note: recommended courses in economics and political science include Econ 517, Poli Sci 421, 519, 528.

Terminal Evaluation

Accounting 597 Project (3)

Accounting Courses

201A,B Elementary Accounting (3,3)

Prerequisite: Accounting 201A must be taken before 201B. Accounting concepts and techniques essential to the administration of a business enterprise; measuring and communicating economic information; analyzing and recording financial transactions; preparation, analysis and interpretation of financial statements; introduction to managerial accounting; product costing; analysis and techniques for aiding management decisions; management control; interaction with finance, management science, interpersonal relations, motivation, and data-information systems. (Not open to freshmen)

301A,B Intermediate Accounting (3,3)

Prerequisites for 301A: Accounting 201B, a passing score on the accounting qualifying examination, and completion of all lower division business administration core courses with grades of at least C in each course. Prerequisite for 301B: A grade of C or better in Accounting 301A. Accounting theory; preparation of income statements, balance sheets and statements of changes in financial position; present value and amount concepts; assets, liabilities and stockholders equity; price-level accounting; pensions; leases; earnings per share; financial statement analysis; accounting changes and error analysis.

302 Cost Accounting (3)

Prerequisites: Accounting 201B, a passing score on the accounting qualifying examination, and completion of all lower division business administration core courses with grades of at least C in each course, or a grade of C or better in 301A. Accounting information for management of manufacturing enterprises; cost records; cost behavior and allocation; product costing and inventory valuation; flexible budgeting; standard costs; responsibility accounting; cost planning and control; and operating decision analysis.

308 Concepts of Federal Income Tax Accounting (3)

Prerequisites: Accounting 201B, a passing score on the accounting qualifying examination, and completion of all lower division business administration core courses with grades of at least C in each course, or a grade of C or better in 301A. Provisions, legislative history and implications of the federal income tax.

401 Advanced Accounting (3)

Prerequisite: Accounting 301B. Business combinations; meaning, usefulness and methodology of consolidated financial statements; investments in non-subsidiary affiliates and corporate joint ventures; consolidated financial statements for overseas units of U.S.-based multinational companies; translations of foreign currencies.

402 Auditing (3)

Prerequisites: Accounting 301B and 302. The auditing standards and procedures used by financial and operational auditors. Management information and computer systems, internal control, audit evidence, professional responsibilities

and legal liabilities, standards of reporting financial information.

403 Accounting for Governmental & Nonprofit Entities (3)

Prerequisite: Accounting 201B or 511. Fund accounting as applied to governmental and nonprofit entities; state and federal governments, municipalities, hospitals and universities. Budgets, tax levies, revenues and appropriations, expenditures and encumbrances, various types of funds, and accounting statements.

407 Accounting Information Systems (3)

Prerequisites: Accounting 301A and 302 and Management Science 265 or equivalent. Alternative accounting systems used for the collection, organization and presentation of information. Theory and practice of information processing, organizational, behavioral and mechanical.

408 Problems in Taxation (3)

Prerequisite: Accounting 308. Federal income tax as it applies to corporations, partnerships, fiduciaries, and federal estate and gift taxes as they apply to taxable transfers.

470 Tax Research, Practice and Procedures (3)

Prerequisite: Accounting 308. The methodology of tax research including case studies; the management of a tax practice; administration procedures governing tax controversies; rights and obligations of taxpayers and tax practitioners.

495 Internship (1-3)

Prerequisites: Accounting 301B (may be taken concurrently), Accounting 302, a major in accounting, consent of the department internship adviser, and at least junior standing, 2.5 GPA and one semester in residence at the university. Planned and supervised work experience. May be repeated for credit up to a total of six units. Credit/No Credit only.

499 Independent Study (1-3)

Prerequisites: senior standing and approval of department chair. Open to qualified undergraduate students desiring to pursue directed independent inquiry. May be repeated for credit. Not open to students on academic probation.

502 Seminar in Accounting Theory (3)

Prerequisites: Accounting 301B, classified SBAE status and consent of instructor. The effects of professional, governmental, business, and social forces on the evolution of accounting theory.

503 Seminar in Contemporary Accounting Problems (3)

Prerequisite: classified M.S. in Accounting status or consent of instructor. Current issues in financial reporting including pronouncements by the Financial Accounting Standards Board and the Securities and Exchange Commission. Coverage of topics will change as new issues in accounting emerge.

505 Seminar in Auditing (3)

Prerequisites: Accounting 402 and classified SBAE status. Auditing theory and practices; professional ethics; auditing standards; Securities and Exchange Commission and stock exchange regulations; auditor's legal liability; statement trends and techniques.

506 Seminar in Professional Accounting Communications (3)

Prerequisite: classified M.S. in Accounting status or consent of instructor. Compilation and composition of accounting reports and client presentations relating to accountants' working papers, client engagement letters, management advisory reports and prospectuses.

507 Seminar in Accounting Information Systems (3)

Prerequisite: Accounting 407, or equivalent with consent of instructor. Case studies of computer based accounting systems used by organizations such as universities, banks, industrial corporations and CPA firms. Emphasis on accounting information, reports and internal controls.

508 Seminar in Tax Planning (3)

Prerequisites: Accounting 308 and classified SBAE status, or consent of instructor. Substantive provisions of federal law; tax planning from a corporate viewpoint; case studies of the effect of federal tax law on business decisions.

510 Financial Accounting (3)

Prerequisite: classified SBAE status. Accumulation, organization, and interpretation of financial and quantitative data relevant to the activities of corporate business enterprise.

511 Seminar in Managerial Accounting (3)

Prerequisites: Accounting 201B or 510, consent of instructor and classified SBAE status. Accounting information for management decisions; elements of manufacturing, distribution and service costs; cost systems; standard costs; cost reports; cost analysis.

518 Seminar in International Accounting (3)

Prerequisites: Accounting 201B or 511 and classified SBAE status. Comparative analysis of accounting principles and practices outside the United States; international financial accounting standards; current problems of international financial reporting, accounting planning and control for international operations; multinational companies.

521 Seminar in Administrative Accounting (3)

Prerequisites: Accounting 302 or 511; classified SBAE status and consent of instructor. Integrative aspects of accounting, financial, and quantitative data for managerial decision-making; long-term, short-term profit planning; budgetary control; cost analysis; financial analysis and planning; taxation; and transfer pricing.

572 Seminar in Taxation of Corporations and Shareholders (3)

Prerequisites: Accounting 308 and classified SBAE status, or consent of instructor. Federal taxation relating to corporations; organizing, distributions, liquidations and reorganizations.

573 Seminar in Taxation of Property Transactions (3)

Prerequisites: Accounting 308 and classified SBAE status, or consent of instructor. Federal taxation relating to sales, exchanges and other transfers.

574 Seminar in Taxation of International Business Operations (3)

Prerequisites: Accounting 308 and classified SBAE status, or consent of instructor. Federal taxation relating to U.S. citizens and corporations with foreign source income and of foreign persons with U.S. source income; planning for foreign operations.

575 Seminar in Estate, Gift, Inheritance Taxes and Estate Planning (3)

Prerequisites: Accounting 308 and classified SBAE status, or consent of instructor. Federal and California death taxes and the planning of personal estates.

576 Seminar in State and Local Taxation (3)

Prerequisites: Accounting 308 and classified SBAE status, or consent of instructor. Application of interstate income allocations; multi-state tax compact; separate v. apportionment accounting; foreign country sourced income. Also, California taxes as applied to businesses and individuals.

577 Seminar in Taxation of Employee Compensation (3)

Prerequisites: Accounting 308 and classified SBAE status, or consent of instructor. Federal taxation relating to employee compensation including pensions and profit sharing, stock options, ESOP's, IRA's, Keogh's, maximum tax 5-year averaging, death benefits, group term life, etc.

578 Seminar in Taxation of Partnerships (3)

Prerequisites: Accounting 308 and classified SBAE status, or consent of instructor. Federal taxation relating to partnerships, estates, trusts and other special entities.

597 Project (3)

Prerequisite: classified SBAE status. Directed independent inquiry. Not open to students on academic probation.

599 Independent Graduate Research (1-3)

Prerequisites: classified SBAE status, consent of instructor and approval by department chair. May be repeated for credit. Not open to students on academic probation.

Business Administration Degrees

INTRODUCTION

This major prepares students for entry level positions in business and administration in both the private and public sectors. Career opportunities range from accounting, cost analysis, marketing research and statistical forecasting to real estate, personnel, sales and information systems. This curriculum also provides a foundation for advanced study.

BACHELOR OF ARTS IN BUSINESS ADMINISTRATION

All of the following requirements must be met for the degree. Students must earn a grade of at least C in each course listed below. However, a C average will be acceptable in the required concentration courses. For assistance in interpreting these requirements contact the Business Advising Center.

Required Lower-Division Core Courses

Economics 201 Principles of Microeconomics (3)
Economics 202 Principles of Macroeconomics (3)

(Note: Economics 210, Principles of Economics (5), may be substituted for Economics 201 and Economics 202.)

Math 135 Business Calculus (3)
or Math 130 A Short Course in Calculus (4)
or Math 150A Analytic Geometry and Calculus (4)
Accounting 201A,B Elementary Accounting (3,3)
Management 246 Business Law (3)
Manag Sci 265 Introduction to Information Systems and Computer Programming (3)

Note: Manag Sci 264, Computer Programming (2), and Manag Sci 263, Introduction to Information Systems and Micro-Computer Applications (2), may be substituted for Manag Sci 265.

English Proficiency Requirement

Cal State Fullerton Examination in Writing Proficiency (EWP)

Business Administration 301 Business Writing (3)

Note: Business Administration 301 Business Writing should be taken before registering for any 400-level SBAE courses.

Required Upper-Division Core Courses

Business administration majors shall not enroll in any required upper-division core course until they have completed all of the required lower-division core courses with a grade of at least C in each course. Students desiring to enroll in required upper-division core courses while concurrently completing the last of their required lower-division core courses may select only Business Administration 301, Business Writing, Economics 310, Intermediate Microeconomic Analysis (or 320, Intermediate Macroeconomic Analysis).

Prerequisite: Accounting 301 and 302. The auditing standards and procedures used by financial and operational auditors. Management information and computer systems, internal control, audit evidence, professional responsibilities

303 Seminar in Contemporary Accounting Problems (3)
Prerequisite: Accounting 401 or consent of instructor. Current issues in financial reporting including pronouncements by the Financial Accounting Standards Board and the Securities and Exchange Commission. Coverage of topics will change as new issues in accounting emerge.

304 Seminar in Auditing (3)
Prerequisite: Accounting 402 and classified SBAE status. Auditing theory and practice; professional ethics; auditing standards; Securities and Exchange Commission and stock exchange regulations; auditor's legal liability; statement trends and techniques.

305 Seminar in Professional Accounting Communications (3)
Prerequisite: classified M.S. in Accounting status or consent of instructor. Compilation and composition of accounting reports and client presentations relating to accountants' working papers, client engagement letters, management advisory reports and prospectuses.

306 Problems in Managerial Accounting (3)
Prerequisite: Accounting 301 or 302 or consent of instructor. Current issues in financial reporting including pronouncements by the Financial Accounting Standards Board and the Securities and Exchange Commission. Coverage of topics will change as new issues in accounting emerge.

307 Seminar in International Accounting (3)
Prerequisite: Accounting 301 or 302 and classified SBAE status. Comparative analysis of accounting practices outside the United States; international financial accounting standards; current problems of international financial reporting; accounting planning and control within the multinational corporation.

308 Seminar in Administrative Accounting (3)
Prerequisite: Accounting 301 or 302 and classified SBAE status. Analysis and synthesis of administrative aspects of accounting; internal and administrative data for management decision-making; long-term planning; budgeting; cost accounting; financial statement analysis and planning; taxation and financial planning.

309 Seminar in Taxation of Corporations and Shareholders (3)
Prerequisite: Accounting 301 and classified SBAE status. Taxation of corporations and shareholders; current issues in corporate and individual taxation; planning and financial reporting.

310 Seminar in Contemporary Accounting Problems (3)
Prerequisite: Accounting 401 or consent of instructor. Current issues in financial reporting including pronouncements by the Financial Accounting Standards Board and the Securities and Exchange Commission. Coverage of topics will change as new issues in accounting emerge.

311 Seminar in Auditing (3)
Prerequisite: Accounting 402 and classified SBAE status. Auditing theory and practice; professional ethics; auditing standards; Securities and Exchange Commission and stock exchange regulations; auditor's legal liability; statement trends and techniques.

312 Seminar in Professional Accounting Communications (3)
Prerequisite: classified M.S. in Accounting status or consent of instructor. Compilation and composition of accounting reports and client presentations relating to accountants' working papers, client engagement letters, management advisory reports and prospectuses.

conomic Analysis), and/or Management Science 361, Probability and Statistical Methods in Business and Economics.

The following are required:

Econ 310 Intermediate Microeconomic Analysis (3)

or Econ 320 Intermediate Macroeconomic Analysis (3)

Note: Management concentration requires Econ 310.

Finance 320 Business Finance (3)

Management 339 Managing Business Operations and Organizations (3)

Management 340 Organizational Behavior (3)

Marketing 351 Principles of Marketing (3)

Manag Sci 361 Probability and Statistical Methods in Business and Economics (4)

Manag Sci 362 Management Science Methods in Business and Economics (3)

or Manag Sci 363 Management Science (3)

Required Concentration Courses

A minimum of 18 units of course work is required in one concentration. See listing of concentration requirements below.

Required Capstone Core Course

After completing all lower and upper-division core courses, take:

Management 449 Seminar in Business Policies (3)

Other Requirements, Grades and Residence

Other subjects. Complete at least 50 units of courses in subjects other than business administration or economics. Complete all university requirements for the bachelor's degree.

Grade-Point Average (GPA). Maintain at least a 2.0 GPA (C average) in all university courses and in the concentration courses. Earn at least a C grade in each course required for the major (other than concentration courses).

Grade option. Take all required core courses and all required concentration courses in the School of Business Administration and Economics for a letter grade (A,B,C,D,F). The Credit/No Credit grading option may not be used for these courses, and a grade of CR (credit) will not satisfy the requirements for the degree. *Exception:* Courses in calculus may be taken under the Credit/No Credit grading option, although courses taken to meet general education requirements must be taken for a letter grade.

Residence. At least nine units of courses in the area of concentration and at least 15 of the last 24 units of courses must be taken in residence at the School of Business Administration and Economics. Students also must fulfill university residence requirements.

Concentrations for the B.A. in Business Administration

Business administration majors must complete the

requirements of one concentration in addition to the degree requirements shown above.

Accounting Concentration (21 units)

All students with an accounting concentration are required to take the courses shown below. Before taking these courses, students must first complete all of the required lower division core courses with a grade of at least C in each course *and* must receive a passing score on the Accounting Qualifying Exam. The examination must be passed during the two semesters prior to the semester of class enrollment. Exceptions to the requirement of completing lower division business core courses may be granted to students with non-business majors.

Accounting 301A,B Intermediate Accounting (3,3)

Accounting 302 Cost Accounting (3)

Accounting 308 Concepts of Federal Income Tax Accounting (3)

Accounting 402 Auditing (3)

Accounting 407 Accounting Info Systems (3)

and one of the following courses:

Accounting 401 Advanced Accounting (3)

Accounting 403 Accounting for Governmental and Nonprofit Entities (3)

Accounting 408 Problems in Taxation (3)

Accounting 470 Tax Research, Practice and Procedures (3)

Business Economics Concentration (18 units)

All students with an economics concentration are required to take:

Econ 310 Intermediate Microeconomic Analysis (3)

as part of their business administration core requirements. In addition, the concentration requires:

Econ 320 Intermediate Macroeconomic Analysis (3)

Econ 410 Government and Business (3)

and 12 units of upper-division economics electives, 3 units of which must be at the 400-level.

Students interested in economics also should consider the Bachelor of Arts in Economics.

Finance Concentration (18 units)

All students with a finance concentration *must* choose *one* of the following emphases:

Financial Institutions Emphasis (18 units)

Finance 331 Financial Management and Computer Applications (3)

Finance 332 Theory of Corporate Finance (3)

Finance 340 Introduction to Investments (3)

Finance 425 Commercial Bank and Financial Institution Management (3)

Finance 440 Money and Capital Markets (3)

and 3 units of upper division finance electives (other than Finance 310)

Financial Management Emphasis (18 units)

- Finance 331 Financial Management and Computer Applications (3)
Finance 332 Theory of Corporate Finance (3)
Finance 340 Introduction to Investments (3)

and two of the following courses:

- Finance 370 International Business Finance (3)
Finance 432 Financial Forecasting and Budgeting (3)
Finance 433 Problems in Business Finance (3)

and 3 units of upper division finance electives (other than Finance 310)

Investments and Financial Planning Emphasis (18 units)

- Finance 331 Financial Management and Computer Applications (3)
Finance 332 Theory of Corporate Finance (3)
Finance 340 Introduction to Investments (3)

and three of the following courses:

- Finance 360 Principles of Insurance (3)
Finance 410 Theory and Practice of Personal Financial Planning (3)
Finance 442 Advanced Investment Analysis (3)
Finance 444 Options and Futures (3)
Finance 450 Real Estate Investment Strategy (3) or Finance 455 Real Estate Investment Analysis (3)

Notes: Finance 450 or Finance 455 (but not both) may be used to satisfy the requirements for this emphasis. Also, in addition to the requirements shown above, students are encouraged to take Accounting 308 Concepts of Federal Income Tax.

Real Estate Emphasis (18 units)

- Finance 331 Financial Management and Computer Applications (3)
Finance 332 Theory of Corporate Finance (3)
Finance 351 Real Estate and Urban Land Analysis (3)
Finance 452 Real Estate Finance (3)
Finance 453 Real Estate Valuation (3)

and one of the following courses:

- Finance 450 Real Estate Investment Strategy (3)
Finance 451 Real Estate/Land Use Law--Case Studies (3)
Finance 454 Real Estate and Urban Development (3)
Finance 455 Real Estate Investment Analysis (3)
Finance 456 Property Development and Real Estate Policy Analysis (3)

Management Concentration (18 units)

All students with a management concentration are required to take:

- Econ 310 Intermediate Microeconomic Analysis (3)

as part of their business administration core requirements. In addition, students *must* choose one of the following emphases.

Contract Management Emphasis (18 units)

- Management 341 Service Operations (3) or Management 342 Production Operations (3)
Management 343 Personnel Management (3)
Management 347 Business Law (3) or Management 348 Business Law (3)
Management 436 Government Contracts (3)
and 6 units of elective course work to be determined in consultation with a departmental adviser.

Entrepreneurial Management Emphasis (18 units)

- Management 341 Service Operations (3) or Management 342 Production Operations (3)
Management 343 Personnel Management (3)
Management 345 Small Business Management (3) or Management 448 Seminar in Small Business Consulting (3)
Management 349 Law for the Small Business (3) or Management 444 Project Management (3)
and 6 units of elective course work to be determined in consultation with a departmental adviser.

General Management Emphasis (18 units)

- Management 341 Service Operations (3) or Management 342 Production Operations (3)
Management 343 Personnel Management (3)
Management 347 Business Law (3) or Management 440 Emerging Issues in Management (3)
Management 447 Management Decision Games (3)
and 6 units of elective course work to be determined in consultation with a departmental adviser.

Operations Management Emphasis (18 units)

- Management 342 Production Operations (3)
Management 421 Operations Systems Design (3)
Management 422 Production and Inventory Control (3)
Management 445 Operations Policy and Strategy (3)
and two 3 unit electives chosen in consultation with a departmental adviser.

Human Resources Management Emphasis (18 units)

- Management 341 Service Operations (3) or Management 342 Production Operations (3)
Management 343 Personnel Management (3)
Management 433 Advanced Topics in Human Resource Management (3)
Management 441 Labor-Management Relations (3)
and 6 units of elective course work to be determined in consultation with a departmental adviser.

Organizational Behavior Emphasis (18 units)

- Management 341 Service Operations (3) or Management 342 Production Operations (3)
Management 343 Personnel Management (3)
Management 439 Organizational Change and Development (3)
Management 443 Individual, Interpersonal and Group Dynamics for Management (3)
and 6 units of elective course work to be determined in consultation with a departmental adviser.

Management Information Systems Concentration (22 units)

All students with a management information systems concentration are required to take:

- Management 344 Intro to Systems Concepts (3)
Manag Sci 270 File Concepts and COBOL Programming (4)
Manag Sci 300 Elements of Information Systems Design and Data Communication (3)
Accounting 302 Cost Accounting (3)
Manag Sci 408 Data Base Manag Systems (3)
Management 454 MIS Analysis and Design (3)
and 3 units of upper-division electives to be selected from the following courses:
Comp Sci 423 Language Processor Tech (3)
Comp Sci 459 Micro-Computer Software Sys (3)
Management 444 Project Management (3)
Management 494 Seminar in Management Information Systems (3)
Manag Sci 302 Software Systems for Decision Support (3)
Manag Sci 310 Adv COBOL Programming (3)
Manag Sci 333 File Structures in BASIC Programming (3)
Manag Sci 409 Distributed Data Processing (3)
Manag Sci 411 Data Processing: Small Computers (3)
Manag Sci 416 Computer Perform Evaluation (3)
Manag Sci 418 Privacy, Security and Data Processing (3)
Manag Sci 448 Computer Simulation in Business and Economics (3)

Management Science Concentration (18 units)

All students with a management science concentration are required to take:

- Manag Sci 440 Deterministic Models in Management Science (4)
Manag Sci 441 Probabilistic Models in Management Science (4)
Manag Sci 461 Statistical Theory for Management Science (4)
and 6 units of upper-division management science electives chosen from the following:

Information Systems Courses

- Manag Sci 300 Elements of Information System Design and Data Communication (3)
Manag Sci 302 Software Systems for Decision Support (3)
Manag Sci 310 Advanced COBOL Programming (3)
Manag Sci 404 Analysis of Information Systems (3)
Manag Sci 408 Data Base Management Systems (3)
Manag Sci 409 Distributed Data Processing (3)
Manag Sci 411 Data Processing: Small Computers (3)
Manag Sci 416 Computer Performance Evaluation (3)
Manag Sci 418 Privacy, Security and Data Processing (3)

Operations Research Course

- Manag Sci 448 Computer Simulation in Business and Economics (3)

Statistics Courses

- Manag Sci 420 Applied Statistical Forecasting (3)
Manag Sci 422 Surveys and Sampling Design and Applications (3)
Manag Sci 467 Statistical Quality Control (3)

Marketing Concentration (18 units)

All students with a marketing concentration *must* choose *one* of the following emphases:

Advertising Management Emphasis (18 units)

- Marketing 354 Principles of Advertising (3)
Marketing 370 Consumer Behavior (3)
Marketing 379 Marketing Research Methods (3)
Marketing 454 Advertising Management (3)
Marketing 459 Marketing Problems (3)
and 3 units of upper-division marketing electives

Marketing Management Emphasis (18 units required)

A 3-unit behavioral course (Marketing 354, 356 or 370)

- Marketing 359 Industrial Marketing (3)
Marketing 379 Marketing Research Methods (3)
or Marketing 457 Quantitative Marketing Analysis (3)

- Marketing 459 Marketing Problems (3)
and 6 units of upper-division marketing electives

Marketing Research Emphasis (18 units)

- Marketing 370 Consumer Behavior (3)
Marketing 379 Marketing Research Methods (3)
Marketing 459 Marketing Problems (3)
Marketing 479 Research Problems in Marketing (3)
and 6 units of upper-division marketing electives

Industrial Marketing Emphasis (18 units)

- Marketing 356 Professional Selling (3)
Marketing 359 Industrial Marketing (3)
Marketing 379 Marketing Research Methods (3)
Marketing 459 Marketing Problems (3)
Marketing 469 Industrial Marketing Strategy (3)
and one of the following courses:
Marketing 358 Physical Distribution (3)
Marketing 455 Management of the Sales Force (3)
Marketing 457 Quantitative Marketing Analysis (3)
Marketing 458 International Marketing Policies (3)
Marketing 460 Marketing for Nonprofit Org (3)

Retailing Emphasis (18 units)

- Marketing 352 Principles of Retailing (3)
Marketing 370 Consumer Behavior (3)
Marketing 379 Marketing Research Methods (3)
Marketing 456 Retailing Management (3)
Marketing 459 Marketing Problems (3)
and 3-unit upper-division marketing elective

Sales Management Emphasis (18 units)

Marketing 356 Professional Selling (3)
 Marketing 370 Consumer Behavior (3)
 Marketing 379 Marketing Research Methods (3)
 Marketing 455 Management of the Sales Force (3)
 Marketing 459 Marketing Problems (3)
 and 3-unit upper-division marketing elective

International Marketing Emphasis (18 units)

A 3-unit behavioral course (Marketing 354, 356, or 370)

Marketing 379 Marketing Research Methods (3)
 Marketing 458 International Marketing Policies (3)
 Marketing 459 Marketing Problems (3)
 and 6 units of upper-division marketing electives

MINOR IN BUSINESS ADMINISTRATION

The minor provides a basic understanding of the role of business in society and the methods used by business. This curriculum also provides a basis for advanced study. A working knowledge of algebra is necessary for several of the required courses.

Business administration minors shall not enroll in any required upper-division course (in the minor) until they have completed all of the required lower-division courses (in the minor) with a grade of at least C in each course. Students must earn a grade of at least C in each course listed below.

Required Lower-Division Courses

Economics 201 Principles of Microeconomics (3)
 Economics 202 Principles of Macroeconomics (3)
 or Economics 210 Principles of Economics (5)
 instead of Econ 201 and Econ 202
 Accounting 201A,B Elementary Accounting (3.3)
 Management 246 Business Law (3)
 Management Science 265 Intro to Information
 Systems and Computer Programing (3)*
 or Sociology 289 Computer Methods in the Social
 Sciences (3)

*Recommended for students who plan on taking additional electives in Management Science

Required Upper-Division Courses

Special Notice: Enrollment in these courses requires the completion of all lower-division minor requirements with a grade of C or better in each course.

Management 339 Managing Business Operations
 and Organizations (3)
 or Management 340 Organizational Behavior (3)
 Finance 320 Business Finance (3)
 Marketing 351 Principles of Marketing (3)

Economics Majors Minor in Business Administration: Economics Majors can complete a minor in business administration by taking Management 246, Finance 320, Management 339 or 340 and Marketing 351. All other required courses for the minor are required for the major in Economics.

MASTER OF BUSINESS ADMINISTRATION DEGREE

This is the only M.B.A. degree program in Orange County accredited by the American Assembly of Collegiate Schools of Business. This assures a rigorous, in-depth program, covering the full spectrum

of business administration. Accreditation also indicates a well-qualified faculty, high standards for students, and access to an extensive library system.

Programs of Study

The School of Business Administration and Economics offers two plans for the M.B.A. degree.

The M.B.A. Generalist Plan is designed for students with little or no course work in business administration. The curriculum surveys the entire field of business administration, preparing students for general management responsibilities. The plan is structured, keeping students together for most of their classes, and must be completed within three years. Courses may not be waived, although limited substitution of more advanced courses is allowed. This format requires a substantial and sustained commitment from students over the three-year period. Students who do not complete the curriculum within three years may change to the M.B.A. Specialist Plan.

The M.B.A. specialist Plan is designed for students with recent course work (or an undergraduate degree) in business administration; for those who wish to include a specialized area of concentration in their curriculum; and/or for those unable to follow the structure of the M.B.A. Generalist Plan. Some courses may be waived on the basis of equivalent undergraduate course work. The program is not structured, and five years are allowed for completion. The areas of concentration are accounting, business economics, finance, international business, management, management science and marketing.

The M.B.A. program is *scheduled* especially for students who are employed full time. Courses are offered during the late afternoon and evening. Most students enroll on a part-time basis, taking two courses (6-7 units) per semester.

Most *graduate courses* in the School of Business Administration and Economics require "classified SBAE status" and are open only to students with classified standing in the M.B.A., M.S. in Accountancy, M.S. in Management Science, M.S. in Taxation or M.A. in Economics programs.

Admission

Students meeting the following requirements will be admitted to *postbaccalaureate-unclassified* standing:

1. Acceptable bachelor's degree from an appropriately accredited institution, or equivalent.
2. Grade-point average of at least 2.5 in the last 60 semester units attempted and in good standing at last college attended.

Note: Postbaccalaureate-unclassified students may enroll in undergraduate courses (100 thru 400 level) but are generally ineligible for graduate business courses (500 level). Such students may wish to take undergraduate courses which are necessary to meet the requirements for classified standing (see below). Upon completing the requirements, the student may file an "Application for Change of Academic Objective-Graduate" requesting admission to the M.B.A. program. *Admission to the university as a*

postbaccalaureate-unclassified student does not constitute admission to the M.B.A. program, does not confer priority, nor does it guarantee future admission. Students planning to apply for admission to the M.B.A. program should confer with the graduate adviser in the School of Business Administration and Economics.

Students meeting the following *additional* requirements will be admitted to the M.B.A. program with conditionally classified standing:

3. Combination of GPA and score on the Graduate Management Admission Test (GMAT) sufficient to yield a score of at least 950 according to one of the following formulas. Due to limited facilities and resources in the School of Business Administration and Economics, a higher score may be required of all applicants.

- A. If overall undergraduate GPA is at least 2.5 and GMAT is at least 450, then score = $(\text{GPA} \times 200) + \text{GMAT}$.
- B. If overall undergraduate GPA is below 2.5 or GMAT is below 450, then score = $(\text{GPA} \times 200) + \text{GMAT} - 50$.
- C. If GPA is based on the last 60 semester units of course work* then score = $(\text{GPA} \times 200) + \text{GMAT} - 100$.*

**All work within any given quarter or semester must be included even though that will result in more than 60 semester units. The units to be included in the last 60 semester units may come only from the following: (1) Work taken in postbaccalaureate status during the last seven years towards fulfilling M.B.A. coursework requirements; (2) units taken under a prescribed remedial program agreed to by the Associate Dean and Director of Graduate Studies, School of Business Administration and Economics; (3) units earned prior to the bachelor's degree.*

Note: Conditionally classified students may take limited number of graduate courses (500 level), subject to the approval of the graduate adviser of the School of Business Administration and Economics. Students are expected to advance promptly to classified standing. In particular, any deficiencies in calculus or computer programming must be removed during the first 12 months of study. Students who do not do so will not be allowed to continue in the program.

Students meeting the following *additional* requirements will be advanced to classified standing. Such students are eligible to take graduate courses for which they are qualified.

4. Proficiency in calculus and computer programming equivalent to passing Mathematics 135, Business Calculus (3 units), and Management Science 264, Introduction to Computer Programming (2 units), with grades of at least C. Students with work experience in these fields may demonstrate proficiency by passing a challenge examination and should consult the chair of the Management Science Department for details.

5. Approval of study plan.

Curriculum—M.B.A./Generalist Plan

The M.B.A./Generalist curriculum includes 15

courses (47 units). Two specified courses must be taken each spring and fall semester for six semesters. The remaining three courses may be taken at the student's convenience, during summer school and/or regular semesters, and must be completed within the three years allowed.

Any deficiencies in calculus or computer programming must be removed *before* starting the program. No courses may be waived, although limited substitutions of more advanced courses in the same field will be allowed. Any study plan course in which a D grade is received must be repeated, and must receive at least a C grade, regardless of the overall GPA of the student.

Foundation Courses

Accounting 510 Financial Accounting (3)
Economics 515 The Price System and Resource Allocation (4)
Finance 517 Managerial Finance (3)
Management 516 Organizational Theory and Management of Operations (3)
Management 518 Legal Environment of Business (2)
Manag Sci 513 Statistical Analysis and Forecasting Techniques (4)
Manag Sci 514 Business Modeling and Solution Techniques (4)
Marketing 519 Marketing Management (3)

Advanced Courses

Accounting 511 Seminar in Managerial Accounting (3)
Econ 521 Macroeconomic Theory and Policy (3) or Econ 522 Comparative Economics Seminar (3)
Finance 523 Seminar in Corporate Financial Management (3)
Management 524 Seminar in Organizational Behavior and Administration (3)
Marketing 525 Seminar in Marketing Problems (3)

Terminal Courses

Business Admin 595 Seminar in Business Administration (3)
Business Admin 596 Management Game (3)

Terminal Evaluation

Comprehensive Examination

Students who are unable to complete the M.B.A./Generalist Plan within three years may change to the M.B.A./Specialist Plan. This change will result in deleting Business Administration 595 (3 units) from the study plan and adding an area of concentration (12 units), a net increase of 9 units.

Curriculum—M.B.A./Specialist Plan

The M.B.A./Specialist curriculum includes a concentration in a specialized area and requires from 33 to 56 units of graduate course work. Students with a bachelor's degree in business administration may be able to complete the program with the minimum of 33 units, whereas those with little or no recent course work in business administration may require

the full 56 units. Any deficiencies in calculus or computer programming must be removed within one year. Any study plan course in which a D grade is received must be repeated, and must receive at least a C grade, regardless of the overall GPA of the student.

Foundation Courses

Foundation courses may be waived on the basis of equivalent undergraduate course work, providing that the equivalent courses are no more than seven years old, have grades of at least C, and a GPA of at least B.

Accounting 510 Financial Accounting (3)
Economics 515 The Price System and Resource Allocation (4)
Finance 517 Managerial Finance (3)
Management 516 Organizational Theory and Management of Operations (3)
Management 518 Legal Environment of Business (2)
Manag Sci 513 Statistical Analysis and Forecasting Techniques (4)
Manag Sci 514 Business Modeling and Solution Techniques (4)
Marketing 519 Marketing Management (3)

A list of equivalent undergraduate courses is available from the graduate adviser. In most cases, students with a recent bachelor's degree in business administration from an accredited university will be able to waive all foundation courses.

Advanced Courses

All seminars in this group must be taken at the graduate level. The management science seminar will be waived for students who have taken both Manag Sci 513 and 514 (but not for students who have taken Manag Sci 361 and/or 362). Students with a concentration in international business are required to take only five of the following courses:

Accounting 511 Sem in Managerial Accounting (3)
Note: Students who have satisfactorily completed a course in cost accounting must substitute Accounting 521 Sem in Administrative Accounting (3).
Econ 522 Comparative Economics Seminar (3)
or Econ 521 Macroeconomic Theory and Policy (3)
(Note: Economics 521 is not open to students with credit in intermediate macroeconomics)
Finance 523 Seminar in Corporate Financial Management (3)
Management 524 Seminar in Organizational Behavior and Administration (3)
Marketing 525 Seminar in Marketing Problems (3)
Manag Sci 526 Forecasting, Decision Analysis, and Experimental Design (3)
or Manag Sci 550 Special Topics on Information Systems Design and Data Communication (3)
or Manag Sci 560 Adv Deterministic Models (3)
or Manag Sci 561 Adv Probabilistic Models (3)

Concentration Courses

(except international business)

12 units in one area of concentration:

Accounting	Management
Business Economics	Management Science
Finance	Marketing

At least 6 units of the concentration courses must be taken at the 500-level. Concentration courses are to be approved by the department chair concerned, or designee within the department, and the Associate Dean, Graduate Programs, School of Business Administration and Economics.

Note: Students choosing the accounting concentration may have to take Accounting 301A,B, Intermediate Accounting, and/or Accounting 308, Concepts of Federal Income Tax Accounting, as prerequisites to their concentration courses.

Concentration Courses—International Business

Five of the following courses (15 units) are required, including at least 9 units at the graduate (500) level. (Note that students with an international business concentration take only five of the courses listed above under Advanced Courses.)

Accounting 518 Seminar in International Accounting (3)
Economics 411 International Trade (3)
Finance 570 Seminar in International Financial Management (3)
Management 547 Comparative Management (3)
or Management 548 Seminar in International Management (3)
Marketing 458 International Marketing Policies (3)
or Marketing 558 Seminar in International Marketing (3)

Elective (3 units) to be approved by the international business advisor. Recommended electives include selected courses in History, Political Science, Communications, Geography and Chicano Studies.

Terminal Requirements

Business Administration 596 Management Game (3)

Comprehensive Examination

Note: In exceptional cases, a thesis (Business Administration 598, Thesis) may be substituted for the comprehensive examination. See the graduate adviser for details.

Business Administration Courses

For information about Business Administration 301, consult the Coordinator Business Writing Program in the Business Writing Office, LH-530. For information about Business Administration 595 and 596, consult the graduate adviser in the Business Advising Center, LH-700.

301 Business Writing (3)

Prerequisites: English 101 or equivalent (with a grade of C or better). Principles of effective writing in business. Extensive practices in various forms of business writing. Case studies. Satisfies the classroom portion of the upper-division writing requirement for business and economics majors.

301W Business Writing Workshop (3)

Prerequisite: English 101 or equivalent (with a grade of C or better). Principles of effective writing in business. Extensive practice in various forms of business writing. Case studies. Uses word processing facilities in computer lab. Satisfies the classroom portion of the upper-division writing requirement for business and economic majors. (2 hours lecture: 2 hours activity.)

499 Independent Study

Prerequisite: consent of instructor. Open to qualified students desiring to pursue directed independent inquiry. May be repeated for credit. Not open to students on academic probation.

595 Seminar in Business Administration (3)

Prerequisites: classified M.B.A. status, within nine units of completing study plan. Business administration capstone course integrating functional areas to formulate business policy. Micro and macro current issues are explored in detail illustrating the complexities and broad responsibilities of business management.

596 Management Game (3)

Prerequisite: classified SBAE status and within six units of completion of the graduate study plan. Policy decisions using the principles and practices of the several disciplines of business administration. Teams plan and execute strategies and analyze the impacts of their decisions under uncertainty. Not open to students on academic probation.

598 Thesis (3)

Prerequisites: classified SBAE status and consent of associate dean. Individual research under supervision. See "Theses and Projects" in this catalog for university requirements.

Department Chair: Jane Hall

Director, Center for Economic Education:

John Lafky

Department Office: Langsdorf Hall 702

Center for Economic Education—Langsdorf Hall 530

Programs Offered

Bachelor of Arts in Business Administration

Concentration in Business Economics

Bachelor of Arts in Economics

Minor in Economics

Master of Business Administration

Concentration in Business Economics

Master of Arts in Economics

Faculty

Robert Ayanian, Kwang-wen Chu, James Dietz,
Peter Formuzis, Andrew Gill, Ken Goldin,
Jane Hall, Walter Hettich, Lionel Kalish,
Sidney Klein, John Lafky, Maryanna Lanier,
Stewart Long, Robert Michaels, Brian Moehring,
Gary Pickersgill, Joyce Pickersgill, Anil Puri,
Guy Schick, Eric Solberg, Murray Wolfson,
David Wong

Advisers

The Business Advising Center provides information on admission, curriculum and graduation requirements; registration and grading procedures; residence and similar academic matters. In addition, all economics majors should see a faculty adviser in the Department of Economics for information on career opportunities and advanced study. Undergraduates should consult the department office for the name of their faculty adviser. Graduate students should consult the graduate coordinator, Eric Solberg.

INTRODUCTION

As a scholarly discipline, economics is over two centuries old, dating back to the French physiocrats and Adam Smith in the 18th century. The nature of economic analysis has been described by John Maynard Keynes as "...a method rather than a doctrine, an apparatus of the mind, a technique of thinking which helps its possessors to draw correct conclusions."

Economic methods are used to study a basic question which faces all societies: how should limited resources be used to produce goods and how should that production be distributed? Not all wants can be

satisfied because resources and knowledge are limited. Therefore, societies are faced with choices. These choices are made in different ways: by custom; by command and centralized control; or by a system of markets and prices as in our mixed economy. Economists examine alternative solutions to the basic economic problem by analyzing costs and benefits of changing existing patterns of resource use.

Economists work in many specialties including money and banking, international trade and finance, labor, public finance, industrial policy, business cycles and forecasting. Social issues and problems such as poverty, crime, discrimination, immigration, aging, energy, pollution and education are typical subjects of faculty research.

The faculty of the Economics Department participates in programs leading to both undergraduate and graduate degrees. One undergraduate program leads to a bachelor of arts degree with a major in economics, which focuses on economics as a social science. Another undergraduate program leads to a bachelor of arts degree with a major in business administration and a concentration in business economics and requires a larger number of business courses. Both programs prepare the student for a variety of career opportunities in business and government as well as advanced studies in economics, business, public administration and law. Graduate study is offered in economics, leading to a master of arts degree. Alternatively, students may follow the Master of Business Administration curriculum, with a concentration in business economics.

Credential Information

For students interested in a teaching credential, the Department of Economics offers courses which may be included in the Multiple Subjects Waiver Program; the Single Subject Waiver Program in Business; and in the Supplementary Authorization Programs in Economics and in Economics and Consumer Education.

Further information on the requirements for teaching credentials is found in the Teaching Credential Programs section of this catalog and also is available from the Department Office for Elementary and Bilingual Education and for Secondary Education. Students interested in exploring careers in teaching at the elementary or secondary school levels should contact the Office of Admission to Teacher Education, Education Classroom 207.

Prizes in Economics

Wall Street Journal Student Achievement Award
Outstanding Senior in Economics
Outstanding Graduate Student in Economics

BACHELOR OF ARTS IN ECONOMICS

All of the following requirements must be met for the degree. Students must earn a grade of at least C in each course listed below. However, a C average will be acceptable in the upper division economics electives. For assistance in interpreting these requirements contact the Business Advising Center, Langsdorf Hall 700. Students also should contact their

faculty adviser in the Economics Department prior to or during their first semester.

Required Lower-Division Courses

Economics 201 Principles of Microeconomics (3)
Economics 202 Principles of Macroeconomics (3)

(Note: Economics 210, Principles of Economics (5), may be substituted for Economics 201 and 202.)

Accounting 201A Elementary Accounting (3)
Math 135 Business Calculus (3)
or Math 130 A Short Course in Calculus (4)
or Math 150A Analytic Geometry and Calculus (4)
Economics 440 Introduction to Econometrics (3)
or Math 150B Analytic Geometry and Calculus (4)
or Accounting 201B Elementary Accounting (3)
Manag Sci 265 Introduction to Information Systems and Computer Programming (3)

Note: Management Science 264, Computer Programming (2), and Management Science 263, Introduction to Information Systems and Micro-Computer Applications (2), may be substituted for Management Science 265.

English Proficiency Requirement

Cal State Fullerton Examination in Writing Proficiency (EWP).

Bus Administration 301, Business Writing (3)

Note: Bus Admin 301, Business Writing, should be taken before registering for any 400-level SBAE courses.

Required Upper-Division Courses

Economics 310 Intermed Microeconomic Analysis (3)
Economics 320 Intermed Macroeconomic Analysis (3)
Manag Sci 361 Probability and Statistical Methods in Business and Economics (4)

and 18 units of upper-division economics electives, 6 units of which must be 400 level. No more than 3 units of independent study may be used to meet the 400 level electives requirement.

Other Requirements, Grades and Residence

Other Subjects. Complete at least 50 units of courses outside the School of Business Administration and Economics. The department recommends that these courses be from the social sciences and mathematics. Students planning to do graduate work in economics are advised to take Math 150A,B; Economics 440 and Economics 441. Complete all university requirements for the bachelor's degree.

Grade-Point Average (GPA). Attain at least a 2.0 GPA (C average) in all university courses and in the upper division economics electives. Earn at least a C grade in each course required for the major (other than the upper division economics electives).

Grade Option. Take all required courses in economics, accounting and management science for a letter grade (A,B,C,D,F). The credit/no credit grading option may not be used for these courses, and a grade

of CR (credit) will not satisfy the requirements for the degree. *Exception:* courses in calculus may be taken under the credit/no credit grading option, although courses taken to meet general education requirements must be taken for a letter grade.

Residence. At least 15 units of courses must be taken in residence at the School of Business Administration and Economics at Cal State Fullerton. Also fulfill university residence requirements.

BACHELOR OF ARTS IN BUSINESS ADMINISTRATION

See "Business Administration, Business Economics Concentration."

MINOR IN ECONOMICS

The economics minor covers the basics in the discipline of economics and gives students the opportunity to explore personal interests through electives. Note that a course in calculus (Math 135 or equivalent) is prerequisite to Economics 310 and 320. Students must earn a grade of at least C in each course listed below.

Required Lower-Division Courses

Economics 201 Principles of Microeconomics (3)
Economics 202 Principles of Macroeconomics (3)

Note: Economics 210, Principles of Economics (5), may be substituted for Economics 201 and Economics 202.

Required Upper-Division Courses

Economics 310 Intermediate Microeconomics Analysis (3)
Economics 320 Intermediate Macroeconomics Analysis (3)

and 9 units of upper division economics electives

Note: Students with a major in business administration and a concentration other than economics, who wish to minor in economics, must take Economics 201 and 202 (or 210) and 310 as part of their major. For such students, these requirements in the minor will be waived and the minor will consist of Economics 320 and nine units of upper-division economics electives. Students with a major in business administration and a concentration in business economics may not also minor in economics.

MASTER OF BUSINESS ADMINISTRATION

See "Business Administration, Business Economics Concentration."

MASTER OF ARTS IN ECONOMICS

This program provides preparation for professional careers in private industry and government and provides a foundation for further graduate work at the doctoral level. Full-time and part-time students can be accommodated. Most of the courses are scheduled in the evening.

The curriculum is designed for students with an undergraduate degree in business administration or economics, and consists of 10 courses (30 units). Provided that all prerequisites have been satisfied,

the program may be completed in one year (full time) or 2 1/2 years (part time).

The required courses progress from economic theory through economic model building and forecasting to the seminar in which the student prepares a thesis applying economic theory and econometric methods to a specific area of investigation. The curriculum also includes five courses (15 units) of electives.

Most *graduate courses* in the School of Business Administration and Economics require "classified SBAE status" and are open only to students with classified standing in the M.A. in Economics, M.B.A., M.S. in Management Science, or M.S. in Taxation programs.

Admission

Students meeting the following requirements will be admitted to postbaccalaureate-unclassified standing:

1. Acceptable bachelor's degree from appropriately accredited institution, or equivalent.
2. Grade-point average of at least 2.5 in the last 60 semester units attempted, and in good standing at last college attended.

Note: Postbaccalaureate—unclassified students may enroll in undergraduate courses (100 thru 400 level) but are generally ineligible for graduate economics courses (500 level). Such students may wish to take undergraduate courses which are necessary to meet the requirements for classified standing (see below). Upon completing the requirements, the student may file an Application for Change of Academic Objective—Graduate requesting admission to the M.A. in Economics program. Admission to the university as a postbaccalaureate—unclassified student *does not* constitute admission to the program, does not confer priority, nor does it guarantee future admission. Students planning to apply for admission to the program should confer with the graduate adviser in the Department of Economics.

Students meeting the following *additional* requirements will be admitted with conditionally classified standing:

3. Overall undergraduate GPA of at least 2.5.
4. An average score of 500 on the Graduate Record Examination (G.R.E.).

Note: Conditionally classified students may take a limited number of courses at the graduate level, subject to the approval of the graduate adviser of the Department of Economics. Students are expected to advance promptly to classified standing.

Students meeting the following *additional* requirements will be advanced to classified standing. Such students are eligible to take graduate courses for which they are qualified.

5. Completion of the following courses at Cal State Fullerton (or equivalent courses at other institutions) with a grade-point average of at least 3.0 (B average). The course in calculus must have a grade of at least C.

Economics 201 Principles of Microeconomics (3)
 Economics 202 Principles of Macroeconomics (3)
 Economics 310 Intermediate Microeconomic Analysis (3)
 Economics 320 Intermediate Macroeconomic Analysis (3)
 Economics 420 Money and Banking (3)
 or three units of upper-division electives
 Manag Sci 361 Probability and Statistical Methods in Business and Economics (4)
 Mathematics 135 Business Calculus (3)

6. Approval of study plan.

Curriculum

Note: Students are urged to meet as soon as possible with the graduate adviser in the Department of Economics to file a study plan and advance to classified standing.

Any study plan course in which a D grade is received must be repeated, and must receive at least a C grade, regardless of the overall grade-point average of the student.

Required Courses

Economics 440 Introduction to Econometrics (3)
 Economics 502 Adv Microeconomic Analysis (3)
 Economics 503 Adv Macroeconomic Analysis (3)
 Economics 505 Econ Models and Forecasting (3)

Elective Courses

15 units of elective courses in economics at the 400 or 500 level. (Note: With the approval of the graduate adviser of the Department of Economics, some of these courses may be in fields outside of, but related to, economics.) At least six units of elective courses must be at the 500 level, and at least six units must be in economics. Economics 596 is specifically designed to serve as an elective in this program. The topic of the course rotates every semester and it may be repeated for credit.

Terminal Evaluation: Thesis

Economics 598 Thesis Research (3)

Economic Courses

100 The Economic Environment (3)

The application of economics to the problems of unemployment and inflation, the distribution of income, competition and monopoly, the role of government in the economy, and other policy issues. Not open to prebusiness, business administration majors or minors, economics majors or minors, or international business majors.

201 Principles of Microeconomics (3)

Principles of individual consumer and producer decision-making in various market structures; the price system; market performance and government policy.

202 Principles of Macroeconomics (3)

Prerequisite: Economics 201. Principles of macroeconomic analysis and policy; unemployment and inflation; financial institutions; international trade; economic growth; comparative systems.

210 Principles of Economics (5)

Prerequisite: Open only to junior transfers. (Duplicates 201 and 202.) Economic analysis and policy. The central problem, of scarcity, economic institutions of the United States, resource allocation and income distribution, economic stability and growth, the role of public policy, and international applications.

310 Intermediate Microeconomic Analysis (3)

Prerequisite: Economics 202 (or 210) and Math 135. Rational decision-making behavior of consumers and firms and price and output determination in markets.

320 Intermediate Macroeconomic Analysis (3)

Prerequisite: Economics 202 (or 210) and Math 135. The determinants of the level of national income, employment and prices, and monetary and fiscal policies.

330 Comparative Economic Systems (3)

Prerequisite: Economics 100 or 201 or 210. Alternative economic systems; their theoretical foundations, actual economic institutions, and achievements and failures. Contrast between socialist and capitalist systems.

331 The Soviet Economy (3)

Prerequisite: Economics 100 or 201 or 210; The structure and performance of the Soviet economy; the problems of allocating scarce resources and sustaining economic growth in a planned economy.

332 Economic Problems of Asia (3)

Prerequisite: Economics 100 or 201 or 210. The natural resources, population, agricultural, industrial, transportation, communications, monetary, banking, etc. problems of Asia, (i.e., China, Japan, and the Asian subcontinent). The relation of non-economic problems to the economy.

333 Economic Development: Analysis and Case Studies (3)

Prerequisite: Economics 100 or 201 or 210. The processes of economic growth with references to developing areas. Capital formation, resource allocation, relation to the world economy, economic planning and institutional factors, with case studies.

334 Economics of Latin American and the Caribbean (3)

Prerequisite: Economics 100 or 201 or 210. Examines regional economic problems within an international context: dependence, industrialization and the international corporation; agriculture; regional cooperation; inflation; trade and debt problems. Major economic thinkers will be discussed.

335 The International Economy (3)

Prerequisite: Economics 100 or 201 or 210. The theory, practice and institutions of the international economy. International trade and investment; European economic community; balance of payments; foreign exchange rates; multinational enterprise; trade with developing countries; East-West trade; international economic policy.

340 The Economics of Regulation (3)

Prerequisite: Economics 100 or 201 or 210. The laws pertaining to regulation and the implications for each regulated industry. Industry studies; the effects of regulation on price, output, innovations, etc.

350 American Economic History (3)

Prerequisite: Economics 100 or 201 or 210. The development of American economic institutions; economic problems, economic growth and economic welfare.

351 European Economic History (3)

Prerequisite: Economics 100 or 201 or 210. The evolution of European economic institutions and their relation to the development of industry, commerce, transportation and finance in the principal European countries.

361 Urban Economics (3)

Prerequisite: Economics 100 or 201 or 210. Theory and analysis of the urban economy, urban economic problems and policy.

362 Environmental and Resource Economics (3)

Prerequisite: Economics 100 or 201 or 210, or consent of instructor. Economic analysis of environmental problems and related issues in resource development: externalities, property rights, social costs and benefits, user cost, rent and decisionmaking under uncertainty.

363 The Economics of Energy (3)

Prerequisite: Economics 100 or 201 or 210. Economic theory applied to energy problems, the impact of energy development on economic structure, and the role of government in allocating energy resources and influencing their use.

410 Government and Business (3)

Prerequisite: Economics 310 and Business Administration 301 or the equivalents. Business organization, conduct and performance; the rationale and impact of public policy on business and business activities, including the regulated industries, sick industries and antitrust policy.

411 International Trade (3)

Prerequisite: Economics 310 and Business Administration 301 or the equivalents. The theory of international trade and the means and significance of balance of payments adjustments; past and present developments in international, commercial and monetary policy.

412 Labor Economics (3)

Prerequisite: Economics 310 and Business Administration 301 or the equivalents. Labor supply and demand, labor force participation, employment, unemployment, human capital, wage differentials, disadvantaged labor market groups, discrimination and wage-related income transfers.

416 Benefit Cost and Microeconomic Policy Analysis (3)

Prerequisite: Economics 310 or consent of instructor, Business Administration 301 or the equivalent. Evaluation of benefit-cost studies prepared for government programs; educational and water resources. Methods of estimating environmental, cultural, life-saving, and macroeconomic benefits and costs; handling future benefits and costs.

417 Public Finance (3)

Prerequisite: Economics 310 or consent of the instructor, Business Administration 301 or the equivalent. Government finance at the federal, state and local levels; the impact of taxation and spending on resource allocation, income distribution, stabilization and growth.

420 Money and Banking (3)

Prerequisite: Economics 320 and Business Administration 301 or the equivalents. The money supply process and the impact of monetary policy on economic activity.

421 Monetary and Fiscal Policy (3)

Prerequisite: Economics 320 and Business Administration 301 or the equivalents. The techniques of monetary and fiscal policy; of their relative roles in promoting economic stability and growth.

440 Introduction to Econometrics (3)

Prerequisites: Economics 202 (or 210), Manag Sci 361 and Business Administration 301 or the equivalents. Economic measurement: specification and estimation of econometric models; statistical methods in economic research.

441 Introduction to Mathematical Economics (3)

Prerequisites: Economics 202 (or 210) and Math 135 or equivalent. Economic theory, from microeconomics and macroeconomics. Content varies; constrained optimization problems and rational decision-making.

446 Managerial Economics (3)

(Same as Management 446.)

450 History of Economic Thought (3)

Prerequisites: Economics 310 or 320 and Business Administration 301. Major schools of thought and of leading individual economists as they influenced economic thought and policy.

495 Internship (1-3)

Prerequisites: economics major with Business Administration 301, Manag Sci 361, Economics 310 (or 320) (or the equivalents) or international business major with Business Administration 301, Economics 202 and 335, Manag Sci 361 (or the equivalents); and consent of the department internship adviser, at least junior standing, 2.5 GPA and one semester in residence at the university. Planned and supervised work experience. May be repeated to a total of six units credit. Credit/No Credit grading only.

496 Student-to-Student Tutorial (1-3)

Prerequisites: economics major or concentration, Economics 310 and 320, Business Administration 301, senior standing, 3.0 GPA and consent of department chair. Student learns through teaching (tutoring) other students enrolled in principles and intermediate economics courses. Consult "Student-to-Student Tutorials" in this catalog for more information. May not be used to satisfy the elective requirements for the major or concentration in economics. Credit/No Credit grading only.

499 Independent Study (1-3)

Prerequisites: economics major or concentration, Economics 310 and 320, Business Administration 301 (or the equivalents), senior or graduate standing, and consent of instructor and department chair. Directed independent inquiry. May be repeated for credit. Not open to students on academic probation.

502 Advanced Microeconomic Analysis (3)

Prerequisites: Economics 310 and classified SBAE status or consent of instructor. The determination of prices and outputs in a market system. Deterministic and probabilistic models of demand, production, cost and investment. Includes behavioral, probabilistic, game theoretic and behavioral models of the firm.

503 Advanced Macroeconomic Analysis (3)

Prerequisites: Economics 320 and classified SBAE status or consent of instructor. The determination of employment, fluctuations of real and money income, and the forces underlying economic growth.

505 Economic Models and Forecasting (3)

Prerequisites: Economics 440 and classified SBAE status or consent of the instructor. Statistical methods of econometric estimation and forecasting. Practical solutions to problems in model specification, estimation by regression, time series analysis and forecasting.

515 The Price System and Resource Allocation (4)

Prerequisites: classified SBAE status and Math 135 or the equivalent. Microeconomic analysis and policy under mixed capitalism. The economic environment and institutions, markets, consumer choice, production and resource allocation. Monopoly power and government intervention. (Not open to M.A. Economic candidates.)

516 Economics and Benefit-Cost Analysis (3)

Prerequisites: Economics 201 (or 210) and classified graduate status in environmental studies or public administration. Economics and benefit-cost analysis of public projects. Consumer demand and the estimation of benefits; the nature of cost in a market economy; price controls, unemployment and inflation; and criteria for choice, for multi-year projects. For elective credit in the M.S. Environmental Studies or M.P.A.

517 Economics of Public Finance (3)

Prerequisite: Economics 515 (or 516) and classified graduate status in environmental studies, public administration or taxation. Economics and federal, state and local governmental spending, taxation and borrowing. Major taxes, their effects on market prices, income distribution, employment and inflation and evaluation of reform proposals. (For elective credit in the M.S. Environmental Studies, M.P.A. or M.S. Taxation.)

521 Macroeconomic Theory and Policy (3)

Prerequisites: Economics 310 or 515 and classified SBAE status. National income determination and macroeconomic models. Inflation and unemployment. Monetary and fiscal policies. International trade and foreign exchange (Not open to M.A. Economics candidates or students with credit for Economics 320.)

522 Comparative Economics Seminar (3)

Prerequisites: Economics 515 or 310 and classified SBAE status. Analytical and prescriptive approaches to economic problems of scarcity, development, fiscal and monetary policy, planning and poverty. (Not open to M.A. Economics candidates.)

596 Topics in Economic Analysis and Policy (3)

Prerequisites: Economics 310 and 320; classified SBAE status or consent of instructor. Contemporary research in areas such as: resource economics; history of economic thought; international monetary systems; forecasting; economics of planning; human resource economics. May be repeated for credit.

597 Project (3)

Open to qualified graduate students. Directed independent inquiry. Not open to students on academic probation.

598 Thesis Research (3)

Prerequisites: Economics 502, 503 and classified SBAE status. Corequisite: Economics 505. Selection and approval of topic; outline; methodology; literature survey; data collection and analysis; presentation of results. Award of the grade is contingent upon the completion and acceptance of the thesis.

599 Independent Graduate Research (1-3)

Prerequisites: Economics 440, 502 and 503; classified graduate status; and consent of instructor and department chair (or designee). Directed advanced independent inquiry. May be repeated for credit. Not open to students on academic probation.

Department of Finance

Department Chair: John Emery

Department Office: Langsdorf Hall 556

Programs Offered

Bachelor of Arts in Business Administration

Concentration in Finance

Master of Business Administration

Concentration in Finance

Faculty

Hamdi Bilici, Albert Bueso, Donald Crane,
John Erickson, Farzad Farsio, Albert J. Fredman,
Peter Mlynaryk, Dennis O'Connor,
P. James Stickels, Marco Tonietti, B. E. Tsagris

Advisers

The Business Advising Center, Langsdorf Hall 700, provides information on admissions, curriculum and graduation requirements, registration and grading procedures, residence and similar academic matters. In addition, advising on curriculum content and career opportunities may be obtained from the chair of the Finance Department or from:

Financial Management	Marco Tonietti
Insurance	Marco Tonietti
Personal Financial Planning	Donald Crane
Real Estate	B. E. Tsagris
Securities and Investments	Albert Fredman

INTRODUCTION

Finance is the study of the methods by which a firm provides itself with cash to run its daily operations and its long-range expansion.

In choosing their course work students may elect one of five areas of emphasis within the finance concentration of the major in business administration: financial management; securities-investments; real estate; personal financial planning; and insurance. A financial management emphasis can lead to positions as financial analyst for industrial firms, banks or public utilities. A securities-investment emphasis may lead to stock brokerage firm opportunities.

Financial analysts can work in real estate for developers, appraisers or brokers. Professional financial planning for individuals may be a career choice with an emphasis in personal financial planning. Working with pensions or with life or health insurance is an option for students who choose an insurance emphasis.

Monetary and Fiscal Policy (3)

Prerequisite: Economics 320 and Business Administration 301 or the equivalents. The techniques of monetary and fiscal policy; of their relative roles in promoting economic stability and growth.

Credential Information

For students interested in a teaching credential, the Department of Finance offers courses which may be included in the Single Subject Waiver Program in Business and in the Supplementary Authorization Program in Economics and Consumer Education.

Further information on the requirements for teaching credentials is found in the Teaching Credential Programs section of this catalog and is also available from the Department Office for Secondary Education. Students interested in exploring careers in teaching at the elementary or secondary school levels should contact the Office of Admission to Teacher Education.

Prizes in Finance

The Wall Street Journal Award
Edward D'Cunha Finance Award
Financial Management Association Award
Outstanding Finance Student Award
Outstanding Service Award

BACHELOR OF ARTS IN BUSINESS ADMINISTRATION

See "Business Administration, Finance Concentration."

MASTER OF BUSINESS ADMINISTRATION

See "Business Administration, Finance Concentration."

Finance Courses

310 Personal Financial Management (3)

Financial problems of the household in allocating resources and planning expenditures. Housing, insurance, installment buying, medical care, savings and investments. (May not be used to fulfill the concentration requirement in finance.)

320 Business Finance (3)

Prerequisite: Accounting 201B. Financing business enterprises; financial planning and control; analysis of alternative sources and uses of combinations of short-, intermediate- and long-term debt and equity. Cost of capital. Study of capital investment decisions; capital budget analysis and valuation; working capital and capital structure management; relative impact on the international environment of financial decisions.

331 Financial Analysis (3)

Prerequisite: Finance 320. Fund statement analysis; cash budgeting and pro forma financial statements; traditional versus modern financial statement analysis; break-even analysis; cash, marketable securities, inventory and accounts receivable management models; short-term borrowing.

332 Theory of Corporate Finance (3)

Prerequisite: Finance 331 (may be taken concurrently). Risk and return analysis. An introduction to the capital asset and arbitrage pricing models. Analysis of capital budgeting, capital structure, dividend policy, leasing, mergers and divestitures.

340 Introduction to Investments (3)

Prerequisite: Finance 311 (may be taken concurrently). Institutional characteristics of securities markets, security valuation and trading methods, fundamental and technical analysis, selection and management of securities, introduction to the capital asset pricing model, role of options and futures markets, portfolio analysis and mutual funds.

351 Real Estate and Urban Land Analysis (3)

Prerequisite: Finance 320 or consent of instructor. Real estate principles, practices and investment decisions. Equity investment, finance, legal aspects, practices, principles, property development, real estate administration in the public sector, real estate market analysis, valuation.

360 Principles of Insurance (3)

Prerequisite: junior or senior status. Life, casualty and liability insurance, individual and group insurance programs; methods of establishing risks and rates.

370 International Business Finance (3)

Prerequisite: Finance 320 or consent of instructor. Financing problems of international business. The international financial environment, taxation of foreign income, international capital and money markets, problems of risk in foreign investments, and financial techniques for the operation of a multinational firm.

410 Theory & Practice of Personal Financial Planning (3)

Prerequisite: Finance 320. Developing, implementing and monitoring comprehensive personal financial plans. Includes risk management, investments, taxation, retirement and estate planning, as well as professional practices.

425 Commercial Bank and Financial Institution Management (3)

Prerequisite: Finance 320. The solution of financial institution problems. Major financial intermediaries and the decision-making problems they face. Regulation and its effect on management operations. Group problems and case studies.

430 Computer-Aided Financial Analysis (3)

Prerequisite: Finance 331 or 332. Set-up and analysis of financial models using readily available software programs on campus computers. Introduces financial databases. Employs financial modeling programs to test decision models dealing with financial valuation and planning.

432 Financial Forecasting and Budgeting (3)

Prerequisite: Finance 331. Forecasting in financial management; construction and interpretation of economic forecasts for the economy, industry and the firm; construction and interpretation of financial plans; evaluation of capital acquisition decisions under certainty and uncertainty conditions.

433 Problems in Business Finance (3)

Prerequisite: Finance 332. Case studies. Group problems of estimating funds requirements, long-term financial planning, controlling and evaluating cash flows, and financing acquisitions and mergers, capital budgeting, and cost of capital. Group problems and case studies.

440 Capital and Money Markets (3)

Prerequisite: Finance 320. Capital and money markets in the American economy; markets for new corporate and government issues; secondary markets; interrelation of financial institutions; factors influencing yields and security prices.

442 Advanced Investment Analysis (3)

Prerequisites: Finance 340 and Management Science 361. Securities markets and company analysis, security valuation models the CAPM and the APT option pricing, and portfolio models. Practical application of investment theory and recent literature will be emphasized.

444 Options and Futures (3)

Prerequisite: Finance 340. Put and call options, option pricing theory and models. Financial futures pricing, hedging strategies and models. Institutional characteristics of futures trading. Options and futures on stock indices. Options on futures, theoretical relationship between options and futures.

450 Real Estate Investment Strategy (3)

Prerequisite: Finance 351 or consent of instructor. Background discussion of investment risks, reasons for investing in real estate from the viewpoint of the individual investor. Preparation of personal real estate investment portfolio and analytical methods for real estate investment evaluation.

451 Real Estate/Land Use Law—Case Studies (3)

Prerequisite: Finance 351. Real estate law. Cases provide illustrations of specific legal situations; financial institutions, property rights, zoning, land use law and environmental impact requirements.

452 Real Estate Finance (3)

Prerequisite: Finance 351. Financial institutions and real estate credit. Sources and uses of capital (funds) in financing real estate transactions. Money and capital markets and their effect on credit availability. Instruments in real estate finance. Investment methods and decisions. Group problems and case studies.

453 Real Estate Valuation (3)

Prerequisite: Finance 351. Real property value, historical evolution of valuation principles, approaches in urban and real property appraisals, alternative methods and techniques for property valuation.

454 Real Estate and Urban Development (3)

Prerequisite: Finance 351. Factors and influences of urban growth and development. Economic factors and real estate supply and demand. Location theory and urban growth patterns. Public policy as a factor in real estate development. Analysis of real estate markets.

455 Real Estate Investment Analysis (3)

Prerequisite: Finance 351. Alternative analytical techniques in evaluating real estate investments. Tax aspects, measurement of investment returns, application of computer models to investment decisions. Lecture, discussion and case analysis of major investment types—raw land, apartment houses, commercial and industrial uses.

456 Property Development and Real Estate Policy Analysis (3)

Prerequisite: Finance 351. Decision making process in the property development process—from raw land to retail marketing of completed product. Policy formulation and implementation, project feasibility analysis, financial analysis, computer assisted analysis; case studies.

461 Business Risk Management (3)

Prerequisite: Finance 360 or consent of instructor. Techniques and structures of risk management; risk planning, control and financing in the business enterprise.

462 Life and Health Insurance (3)

Prerequisite: Finance 360 or consent of instructor. Life and health insurance coverages, both individual and group policies; the operation of insurance companies. Business and estate planning, pension plans, and government benefits.

495 Internship (1-3)

Prerequisites: Finance 331 or 332, a major in finance, consent of department internship adviser, junior standing, 2.5 GPA and one semester in residence at the university. Also open to international business majors. Planned and supervised work experience. May be repeated for credit up to a total of six units. Credit/No Credit only.

499 Independent Study (1-3)

Prerequisites: senior standing and approval by department chair. Open to undergraduate students desiring to pursue directed independent inquiry. May be repeated for credit. Not open to students on academic probation.

517 Managerial Finance (3)

Prerequisites: Accounting 510 and classified SBAE status. The methodology of financial management. The primary tools for financial analysis, long-term investment decisions, valuation and working capital management. International applications.

523 Seminar in Corporate Financial Management (3)

Prerequisites: Finance 517 and classified SBAE status. The analysis of the financial decision-making process through case studies and seminar presentations. Current financial theory and models. International applications.

533 Seminar in Financial Administration (3)

Prerequisites: Finance 523 and classified SBAE status. Optimal financing and asset administration; advanced techniques of capital budgeting; application of analytical methods to the administration of the finance function of the business firm.

540 Seminar in Financial Markets (3)

Prerequisites: Finance 517 or equivalent and classified SBAE status. Structure and operation of major financial institutions; portfolio composition, price-cost problems, and market behavior; analysis of financial intermediation and interrelation of financial institutions and markets.

541 Seminar in Investment Management (3)

Prerequisites: Finance 517 or equivalent and classified SBAE status. Problems of investment and portfolio management; concepts of risk evaluation and investment criteria; analysis of interest rate movements; investment valuation and timing; regulation and administrative problems of the industry.

551 Seminar in Real Estate Investment (3)

Prerequisites: Finance 517 or equivalent and classified SBAE status. Problems of real estate investment; concepts of evaluation and investment criteria; analysis of real property values; real estate development and financing. Case studies.

570 Seminar in International Financial Management (3)

Prerequisites: Finance 517 or consent of instructor and classified SBAE status. The financial problems of the multinational firm. International financing instruments, capital investment decisions, and constraints on the profitability of multinational businesses.

597 Project (3)

Prerequisite: classified SBAE status. Directed independent inquiry. Not open to students on academic probation.

599 Independent Graduate Research (1-3)

Prerequisites: classified SBAE status, consent of instructor and approval by department chair. May be repeated for credit. Not open to students on academic probation.

International Business Program

Program Coordinator: Irene Lange
Program Office: Langsdorf Hall 626

Program Offered

Bachelor of Arts in International Business

Program Council

Farouk Abdelwahed (Management)
 Linda Andersen-Fiala (French)
 Irene Lange (Marketing)
 Maryanna Lanier (Economics)
 Doris Merrifield (German)
 Dennis O'Connor (Finance)
 Marcial Prado (Spanish)

Advisers

The Business Advising Center, Langsdorf Hall 706, provides information on admissions, curriculum and graduation requirements, registration and grading procedures, residence and similar academic matters. Additional advising on curriculum content and career opportunities is available from the International Business Program:

International Business:	Irene Lange
French:	Linda Andersen-Fiala
German:	Doris Merrifield
Japanese:	Kenji Matsumoto
Spanish:	Marcial Prado
Other languages:	Jacqueline Kiraithe

INTRODUCTION

The international business curriculum covers the fundamentals of business administration, with an emphasis on international business. Foreign language courses are required and stress the use of the language in international business. The program also includes an internship with an international business. This curriculum prepares students for entry level positions in international business. Opportunities exist in contracts, distribution and sales and may lead to general management positions. Since Southern California is a major international business center, there are career opportunities with internationally oriented firms in this area. Other career opportunities may involve international travel or overseas assignments.

Language concentrations are offered in French, German, Japanese, Portuguese, and Spanish. Other concentrations may be developed in the future. The program is offered jointly by the School of Business Administration and Economics and the Department of Foreign Languages and Literatures.

Prize In International Business

The Dennis Rippin-International Marketing Association Scholarship

Preparation For The Major

Students who expect to complete this program in the usual four-year period should realize that the total requirements, including general education courses and prerequisites, can exceed 124 semester units. Intermediate level competency in a foreign language, equivalent to courses numbered 204 in the Department of Foreign Languages and Literatures, is prerequisite to the required concentration courses. It is therefore strongly recommended that students complete a minimum of three years of foreign language study while in high school. Similarly, algebra and geometry are necessary for many required business courses. The equivalent of three years of high school mathematics, including a second course in algebra, is the prerequisite for the required Mathematics 135, Business Calculus. Students without the necessary background will need to enroll in Mathematics 100, Precalculus Mathematics.

BACHELOR OF ARTS IN INTERNATIONAL BUSINESS

All of the following requirements must be met for the degree. Students must earn a grade of at least C in each course listed below. However, a C average will be acceptable in the required concentration courses. For assistance in interpreting these requirements, contact the Business Advising Center, Langsdorf Hall 700.

Required Lower-Division Core Courses

Economics 201 Principles of Microeconomics (3)
Economics 202 Principles of Macroeconomics (3)

Note: Economics 210, Principles of Economics (5), may be substituted for Economics 201 and 202.

Math 135 Business Calculus (3)
or Math 130 A Short Course in Calculus (4)
or Math 150A Analytic Geometry and Calculus (4)
Accounting 201A,B Elementary Accounting (3,3)
Management 246 Business Law (3)
Manag Sci 265 Introduction to Information Systems and Computer Programming (3)

Note: Intermediate competency in the appropriate foreign language is prerequisite to the required concentration courses. If necessary, students should enroll in French, German, Japanese or Spanish 101, 102, 203 and/or 204, or, for students with previous study of a romance language, Portuguese 101 and/or 102. Students may enroll at any point in this sequence of courses for which their previous study and/or experience have prepared them. Normally, two or three years of high school language study are counted as the equivalent of 10 units of college language study. Students should consult an adviser in the Department of Foreign Languages and Literatures before enrolling in their first foreign language course.

English Proficiency Requirement

Cal State Univer. Fullerton Examination in Writing Proficiency (EWP)

Business Administration 301 Business Writing (3)

Note: Business Administration 301 should be taken before registering for any 400-level SBAE courses.

Required Upper-Division Core Courses

Note: International business majors shall not enroll in any required upper-division core course until they have completed all of the required lower-division core courses with a grade of at least "C" in each course. Students desiring to enroll in required upper-division core courses while concurrently completing the last of their required lower-division core courses may select only Business Administration 301, Economics 335 and/or Manag Sci 361.

Economics 335 International Economy (3)
Finance 320 Business Finance (3)
Finance 370 International Business Finance (3)
Management 339 Managing Business Operations and Organizations (3)
Management 340 Organizational Behavior (3)
Manag Sci 361 Probability and Statistical Methods in Business and Economics (4)
Marketing 351 Principles of Marketing (3)
Marketing 458 International Marketing Policies (3)

And a minimum of three units chosen from among the following electives. It is recommended that students take up to 12 units of electives, if possible.

Anthropology 303 Economic Anthropology (3)
Anthropology 308 Culture Change (3)
Comp Lit 453 The Novel in France and Germany (3)
Geography 333 Latin America (3)
Geography 336 Europe (3)
Geography 344 Africa (3)
Geography 360 Economic Geography (3)
History 350 History of Latin America Civilization (3)
History 429 Europe Since 1914 (3)
History 432 Modern Germany from the 18th Century (3)
History 453 Modern Mexico (3)
Philosophy 312 Business and Professional Ethics (3)
Poli Sci 430 Government and Politics of a Selected Nation-State (3)*
Poli Sci 431 Government and Politics of a Selected Area (3)*
Poli Sci 457 Politics of International Economics (3)
Speech Comm 320 Intercultural Communication (3)

Required Concentration (choose one of the following concentrations)

Concentration in French:

French 310 French in the Business World (3)
French 311 French for International Business (3)
French 315 Origins of Modern France (3)
French 325 Contemporary French Civilization (3)

Concentration in German:

German 310 German in the Business World (3)
German 311 German for International Business (3)
German 315 Introduction to German Civilization (3)
German 325 Current Trends in Culture of German Speaking People (3)

*When topic is appropriate.

Concentration in Japanese:

- Japanese 310 Japanese for Business (3)
- Japanese 311 Japanese for International Business (3)
- Japanese 315 Introduction to Japanese Civilization (3)
- Japanese 316 Modern Japan (3)

Concentration in Portuguese:

- Portuguese 310 Portuguese in the Business World (3)
- Portuguese 317 Advanced Conversation and Composition (3)
- Portuguese 320 Introduction to Luso-Brazilian Culture and Civilization (3)
- Portuguese 325 Contemporary Brazilian Civilization (3)

Note: One of the following courses may be substituted for Portuguese 320 or 325:

- Spanish 310 Spanish in the Business World (3)
- Spanish 311 Spanish for International Business (3)

Concentration in Spanish:

- Spanish 310 Spanish in the Business World (3)
- Spanish 311 Spanish for International Business (3)
- Spanish 315 Introduction to Spanish Civilization (3)
- Spanish 316 Introduction to Spanish-American Civilization (3)

Note: Students may substitute one of the following for Spanish 315 or 316:

- Spanish 415 Contemporary Spanish Culture (3)
- Spanish 416 Contemp Spanish-American Culture (3)

Concentrations in Other Languages

Upon review and recommendation of the International Business Program Council, students who have earned academic credit for courses equivalent to those in the language concentrations, but in languages other than French, German, Japanese, Portuguese and Spanish, may be awarded a degree

with a concentration in the relevant language. In cases where the student has completed some, but not all of the equivalents, the Program Council may recommend appropriate course work.

Required Internships

- Foreign Languages 495 Internship (3)
and one of the following:
- Economics 495 Internship (3)
- Finance 495 Internship (3)
- Management 495 Internship (3)
- Management Science 495 Internship (3)
- Marketing 495 Internship (3)

Note: All students are required to spend a minimum of four months in full-time employment with a faculty-approved firm having international dealings and in which daily use of a foreign language is normal procedure. (Highly qualified students, i.e., those having a 3.2 GPA in their upper-division core and concentration courses, will be aided in finding six-month positions abroad). Simultaneous enrollment in the two required internships is therefore expected, and students normally will not take any other course work during this period.

Other Requirements

Grade Point Average (GPA): Attain at least a 2.0 GPA (C average) in all university courses and in the concentration courses. Earn at least a C grade in each course required for the major (other than concentration courses).

Grade Options: Take all required core and concentration courses for a letter grade (A,B,C,D,F). The credit/no credit grading option may not be used for these courses, and a grade of CR (credit) will not satisfy the requirements of the degree. Exceptions: Calculus (Math 130, 135 or 150A) and Internship may be taken under the credit/no credit option, although courses taken to meet general education requirements must be taken for a letter grade.

Residence: At least 12 units of upper-division core courses, 6 units of upper-division concentration courses and 6 units of internships must be taken in residence at CSUF.

Management Courses

100 Introduction to Legal Principles

Study of law as it affects the business community. Topics include: the legal system, the legal process, the role of the courts, the legal environment of business, contracts, torts, and the legal aspects of business transactions.

200 Business Law

Philosophy, history, and development of the legal system. Functions of courts and the legal process. The legal environment of business.

300 Managing Business Operations and Organization

Regulates all major divisions of business operations. Includes: the manager's role, administrative processes, and the business environment. Topics include: planning, organizing, staffing, supervising, and evaluating business operations.

Department of Management

Department Chair: Thomas Johnson
Department Office: Langsdorf Hall 640
Programs Offered

Bachelor of Arts in Business Administration

Concentration in Management

Master of Business Administration

Concentration in Management

Faculty

Farouk Abdelwahed, Michael Ames, Thomas Apke,
 Mei Liang Bickner, Robert Chapman, James Conant,
 Richard Gilman, Gamini Gunawardane,
 Ghasem Haj-Manoochehri, Dorothy Heide,
 Granville Hough, Richard Houston,
 Thomas Johnson, Geoffrey King, Brian Kleiner,
 Elliot Kushell, Thomas Maher, Thomas Mayes,
 Leland McCloud, Kent McKee, Tai Oh,
 Edgar Wiley, Edward Zilbert

Advisers

The Business Advising Center, Langsdorf Hall 700, provides information on admissions, curriculum and graduation requirements; registration and grading procedures; residence and similar academic matters. In addition, the Management Department provides advising on career opportunities and on the emphases within the Management Concentration:

Contract Manag.	Geoffrey King/Thomas Maher
Entrepreneurial Manag.	Michael Ames
General Manag.	Farouk Abdelwahed
Human Resource Manag.	Mei Bickner
Law	Thomas Apke
Operations Manag.	Michael Ames
Organizational Behavior and Organizational Development	Elliot Kushell

INTRODUCTION

Managers are necessary in a wide variety of different types of organizations—business and nonbusiness, large and small, foreign and domestic. Managers in all of these organizations draw on "management" as a knowledge base to develop the essential skills (technical, human, conceptual) that allow them to implement successfully the management functions (planning, organizing, leading and controlling) while fulfilling various roles (interacting with others, processing information, making decisions). The desired end result is high productivity for individuals, groups, and the organization as a whole.

Management courses are designed to teach the fundamental principles underlying organizations, to emphasize education which will improve students'

Cal State Univer Fullerton Examination in Writing Proficiency (EWP)

thought processes, to provide familiarity with the analytical tools of management, and to develop in the student an ability to use the techniques involved in analyzing and evaluating managerial problems and making sound decisions.

Students may pursue a wide variety of academic and career interests through six different emphases. These emphases include: (1) contract management, (2) entrepreneurial management, (3) general management, (4) human resource management, (5) production and operations management, and (6) organizational behavior.

Credential Information

For students interested in a teaching credential, the Management Department offers courses which may be included in the Single Subject Waiver Program in Business and in the Supplementary Authorization Program in Economics and Consumer Education.

Further information on the requirements for teaching credentials is found in the Teaching Credential Programs section of this catalog and is also available from the Department of Secondary Education. Students interested in exploring careers in teaching at the elementary or secondary school levels should contact the Office of Admission to Teacher Education.

Prizes in Management

The H. Peter Guertin / APICS Orange County Chapter Scholarship

The Orange County Industrial Relations Research Association (OCIRRA)

The Beach Cities Chapter of the National Contract Management Association Scholarship

The Allan F. Long Scholarship

BACHELOR OF ARTS IN BUSINESS ADMINISTRATION

See "Business Administration, Management Concentration."

MASTER OF BUSINESS ADMINISTRATION

See "Business Administration, Management Concentration".

Management Courses

245 Introduction to Legal Principles (3)

The role of law as it affects the citizen in our society. Case studies relating to the legal principles that govern students, family members, motor vehicles, consumers, insureds, real estate transactions, investments, employees and estate planning.

246 Business Law (3)

Philosophy, institutions and role of law in business and society. Functions of courts and attorneys, case studies in areas of contracts and on the law relating to sale of goods.

339 Managing Business Operations and Organizations (3)

Prerequisites: all lower division business core courses or instructor's consent. Administrative processes in utility-creating business operations: decision-making; planning; controlling; organizing; staffing; supporting business information systems; measuring and improving effectiveness;

production processes, production operations and institutions in American and worldwide business. Uses the Production Lab. Includes taking the Cal State Fullerton Examination in Writing Proficiency (fee charged).

340 Organizational Behavior (3)

Prerequisites: general education in social sciences. Social and cultural environments of business. Business ethics. Communication, leadership, motivation, perception, personality development, group dynamics and group growth. Human behavior and organizational design and management practice in American and world wide business. Uses the Behavioral Lab.

341 Service Operations (3)

Prerequisites: Management 339 and Manag Sci 361. Systems and quantitative procedures for services such as food service, entertainment, health care and government agencies. Processes for developing and testing new services. Uses Production Lab. Students may not receive credit for both Management 341 and 342.

342 Production Operations (3)

Prerequisites: Management 339 and Manag Sci 361. Production systems which combine materials, labor, and capital resources to produce goods. Systems, models and methods for management of production operations. Product and process development. Utilization of computer decision models. Uses the Production Lab. Students may not receive credit for both Management 341 and 342.

343 Personnel Management (3)

Prerequisite: Management 339 or consent of instructor. The personnel function, its activities, and its opportunities. Management's responsibilities for selection, development and effective utilization of personnel. Open to non-business majors.

344 Introduction to Systems Concepts (3)

Prerequisite: Manag Sci 265. The role of information systems in organizations, general systems theory, information concepts, and the function of information in management decision making. Includes a project which requires the application of word processing and spreadsheet programs.

345 Small Business Management (3)

Prerequisites: Acctg 201B, Manag 339, Marktg 351. Practical applications of business administration techniques to the planning and operation of small businesses. Casework, research, and field work with selected local small businesses.

347 Business Law (3)

Prerequisite: Management 246 or equivalent. Philosophy, institutions and role of law in business relationships. Business ethics. Case studies in areas of agency, partnerships, corporations, bankruptcy, unfair competition and trade regulation.

348 Business Law (3)

Prerequisite: Management 246 or equivalent. The philosophy, institutions and role of law in commercial and personal transactions: case studies in personal property, bailments, commercial paper, secured transactions, real property, mortgages, trusts, community property, wills, estate administration and insurance.

349 Law for Small Business (3)

Prerequisite: Management 246. The philosophy, institutions, and role of law and their practical applications in the areas

of interest to the small businessperson. Product liability, consumer rights, workman's compensation and other topics.

421 Operations Systems Design (3)

Prerequisites: Management 342 and Manag Sci 362. Managerial problems associated with designing an operations system, including product and process design, facilities planning, capacity choice, job design, automation, quality management and maintenance.

422 Production and Inventory Control (3)

Prerequisites: Management 342 and Manag Sci 362. Planning and controlling of production activities and inventory levels. Identification of key problem areas. Presentation of applicable techniques and systems, and organizational and managerial concepts. Utilization of computer decision models.

431 Women in Management (3)

Prerequisite: Management 340. (For men and women.) Increasing participation in the management of organizations. Employment and earnings, affirmative action, understanding male-female and female-female work relationships, dual careers, and learning how to increase one's effectiveness in organizations.

433 Advanced Topics in Human Resource Management (3)

Prerequisite: Management 343. Contemporary concepts and procedures in compensation and staffing. Current topics and controversial issues in human resource management are also covered.

436 Government Contracts (3) (Formerly 346)

Prerequisite: Management 246. Advertised and negotiated procurement and the role of contract manager. Fiscal and regulatory limitations. The nature of changes, disputes and termination. Contract terms and conditions and administration.

439 Organizational Change and Development (3)

Prerequisite: Management 340 or equivalent; senior or graduate status. Utilizing behavioral science knowledge to improve organizational effectiveness. Diagnosing organizational problems; designing planned change; individual, group- and organizational-level interventions; overcoming resistance to change and issues in the consultant-client relationship.

440 Emerging Issues in Management (3)

Prerequisites: Management 339 and 340 or consent of instructor. For upper-division and graduate students. Business and management in America. The interrelationships of technological, economic, political and social forces with the business enterprises and their ethical obligations to owners, employees, consumers and society at large. Open to non-business majors.

441 Labor-Management Relations (3)

Prerequisite: Management 339. Impact of labor-management relations upon labor, management, and the public. Proper grievance procedure, collective bargaining and settlement of disputes. Uses the Behavioral Lab.

442 Grievance Handling and Arbitration (3)

Prerequisites: Management 441, or consent of instructor, and Management 340. In-depth study of the grievance procedures and the arbitration process and procedure in the private sector. Topics include discipline, contract interpretation, arbitrable issues, management right issues, such as

subcontracting and employee rights. Uses cases and simulations.

443 Individual, Interpersonal and Group Dynamics for Management (3)

Prerequisites: Management 339, 340 or consent of instructor. Case studies and current literature on human problems of work situations. Developing self-knowledge; manager motivation; communicator strengths; improving interaction skills; and improving interaction processes in groups. Uses the Behavioral Lab. (2 hours lecture, 2 hours activity)

444 Project Management (3)

Prerequisites: Management and management science core and other 300 level management courses in student's concentration. Technology for managing business and other enterprises as cybernetic systems. The design and control of systems appropriate for product, project and program levels of analysis. (2 hours lecture, 2 hours activity) Uses Production Lab.

445 Operations Policy & Strategy (3)

Prerequisites: Management 421, Management 422, and Manag Sci 362. Long term planning issues in operations and integrating operations strategy into corporate strategic planning. Covers planning facilities, processes, capacity, support and control systems. Case studies and projects. Uses production computer labs.

446 Managerial Economics (3)

Prerequisites: management science core, Economics 310 and Management 339. Management tools applied. Economics and statistics in decision-making process; use of cases and group problems; cost, demand, supply, price, product and competition.

447 Management Decision Games (3)

Prerequisites: business administration core less Management 449, or consent of instructor. A simulation of an oligopolistic industry. Statistics and other analytical tools to make managerial decisions in management. (2 hours lecture; 2 hours activity)

448 Seminar in Small Business Consulting (3)

Prerequisites: Accounting 201B, Management 339, Marketing 351 and senior standing. A seminar. Planning and working in a consulting relationship with small local businesses. Lectures, research and field work. (1 hour lecture, 6 hours field work)

449 Seminar in Business Policies (3)

Prerequisites: all other School of Business Administration and Economics core courses and departmental approval. Integrative cases from top management viewpoint. Administrative processes, ethical-legal-economic implications of business decisions, international applications; organization theory and policy formulation. Individual and team efforts. Uses the Behavioral Lab.

453 Power and Politics in Business Organizations (3)

Prerequisites: Management 339, 340 and senior standing. Power and influence models as alternatives to quantitative decision-making methods. Used in the organizational/political setting of business to improve understanding of behavior and managerial effectiveness.

454 MIS Analysis and Design (3)

Prerequisites: Management 339, 340; Manag Sci 362, 408; Accounting 302. Strategies for developing I/S applications. Life cycle phases; feasibility studies; project management;

system requirements; system optimization; structured system design; conversion and maintenance. Seminar, case studies and laboratory supported projects.

494 Seminar in Management Information Systems (3)

Prerequisites: 300-level business core courses, Accounting 302, Management 344, 444 (or 454), and Manag Sci 300. Senior seminar and applications in the design, implementation and use of management decision/information systems.

495 Internship (1-3)

Prerequisites: six units of upper division management courses, including Management 339, major in management or international business, consent of department internship adviser and at least junior standing, 2.5 GPA and one semester in residence at the university. Planned and supervised work experience. May be repeated for credit up to a total of six units. Credit/No Credit only.

499 Independent Study (1-3)

Prerequisites: management concentration, senior standing, and approval by faculty sponsor and department chair of proposed statement of work. Open to qualified students desiring to pursue directed independent inquiry. May be repeated for credit. Not open to students on academic probation.

516 Organizational Theory and Management of Operations (3)

Prerequisites: classified SBAE status, Manag Sci 514 (may be taken concurrently), Accounting 510, Economics 515. Modern organization theory and application in utility-creating operations. Interpersonal behavior, planning, control, organizing, directing, communication, production and information systems, and measures of effectiveness. International applications. Business ethics and relationships to society and politics. Graduate discussion and research reports.

518 Legal Environment of Business (2)

Prerequisites: classified SBAE status. Philosophy, institutions and role of law in business. Legal implications inherent

in business decisions. Business ethics. Case studies in areas of agency, partnerships, corporations, product liability, employment and trade regulations.

524 Seminar in Organizational Behavior and Administration (3)

Prerequisites: classified SBAE status, Management 516 and 518 or equivalent. Human behavior in organizations, studies in organizational theories, and administrative action.

542 Seminar in Labor-Management Relations (3)

Prerequisites: classified SBAE status, Management 516 and 518. A seminar that focuses on various aspects of the labor-management relationship, issues in collective bargaining, the laws governing the relationship, contract administration, grievance handling, dispute settlement and arbitration. Negotiation simulation and case analyses.

543 Seminar in Personnel Administration (3)

Prerequisites: classified SBAE status, Management 516 and 518, or equivalent. Cases, problems and significant personnel administration literature in personnel administration and human relations.

547 Comparative Management (3)

Management practices and processes in five geographical areas; market-structures and management characteristics different from those in the United States. Constraints which vary between countries because of cultural, legal, economic and/or political differences.

597 Project (3)

Prerequisite: classified SBAE status. Directed independent project. Student will select and have approved a project proposal, conduct the project and prepare a formal analysis and report. Not open to students on academic probation.

599 Independent Graduate Research (1-3)

Prerequisites: classified SBAE status, consent of instructor and consent of department chair. May be repeated for credit. Not open to students on academic probation.

Management Information Systems

Coordinator: Dorothy Heide

Coordinator's Office: Langsdorf Hall 661

Programs Offered

Bachelor of Arts in Business Administration

Concentration in Management Information Systems

Minor in Management Information Systems

Committee

Eugene Corman (Accounting)

Zvi Drezner (Management Science)

Richard Gilman (Management)

Dorothy Heide (Management)

Jodha Khalsa (Accounting)

Ram Singhania (Management Science)

Robert Vanasse (Accounting)

Advisers

The Business Advising Center, Langsdorf Hall 700, provides information on admissions, curriculum and graduation requirements; registration and grading procedures; residence and similar academic matters. In addition, advising about curriculum content and career opportunities is available from the coordinator and the committee members listed above.

INTRODUCTION

Management information systems are computer based information systems. These systems aid management in making decisions and assist in implementing and controlling management policies. Management information systems are used in business, industry and government operations. Applications include airline reservations, banking transactions, crime prevention networks, election returns, real estate assessment, tax records, newspaper databases, sports statistics and computer assisted learning.

Management information systems incorporate the use of data processing equipment, such as computers and their peripherals. Computer software is used to create, maintain and retrieve information. Techniques include mathematical modeling and statis-

tics, integrated with modern computer technology. These methods are applied to systems management, programming design, analysis of information flow, decision support, database organization, small business problems, data communication networking and distributed processing.

Prizes in Management Information Systems

Outstanding Management Information Systems Undergraduate Award

BACHELOR OF ARTS IN BUSINESS ADMINISTRATION

See "Business Administration, Management Information Systems Concentration."

MINOR IN MANAGEMENT INFORMATION SYSTEMS *

This minor surveys modern computer methods and the development of information-systems. Emphasis is placed on systems which aid management decision-making. Students must earn a grade of at least C in each course listed below.

Accounting 201A Elementary Accounting (3)

Management 344 Introduction to Systems Concepts (3)

Management Science 265 Introduction to Information Systems & Computer Programming (3)

Management Science 270 File Concepts and COBOL Programming (4)

Management Science 300 Elements of Information Systems Design and Data Communication (3)

Management Science 408 Data Base Management Systems (3)

NOTE: Manag Sci 265, 270 and/or 408 may be waived for students who have taken these courses, or their equivalents, as part of their major. However, students must complete a minimum of 12 units for the minor, so that if all three courses are waived, 3 units of electives (to be approved by the MIS Program Coordinator), must be added. Recommended electives include Management Science 302, 310, 404, 409, 411 and 418.

* Students with a major in business administration may not minor in management information systems. Such students should consult the curriculum for concentration in management information systems.

441 Labor-Management Relations (3)

Prerequisite: Management 339. Impact of labor-management relations upon labor, management, and the public. Proper grievance procedures, collective bargaining and settlement of disputes. Uses the Behavioral Lab.

442 Grievance Handling and Arbitration (3)

Prerequisite: Management 441, or consent of instructor, and Management 340. In-depth study of the grievance procedures and the arbitration process and procedure in the private sector. Topics include discipline, contract interpretation, arbitrable issues, management right issues, such as

Uses the Behavioral Lab.

453 Power and Politics in Business Organizations (3)

Prerequisites: Management 339, 340 and senior standing. Power and influence models as alternatives in quantitative decision-making methods. Used in the organizational political setting of business to improve understanding of behavior and managerial effectiveness.

454 MIS Analysis and Design (3)

Prerequisites: Management 339, 340; Manag Sci 362, 408; Accounting 302. Strategies for developing I/S applications. Life cycle phases: feasibility studies, project management;

Department of Management Science

Department Chair: Zvi Drezner
Department Office: Langsdorf Hall 540

Programs Offered

Bachelor of Arts in Business Administration

Concentration in Management Science

Master of Business Administration

Concentration in Management Science

Master of Science in Management Science

Concentration in Management Information
Systems

Concentration in Operations Research

Concentration in Statistics

Faculty

Lutchminia Bilici, Shu-Jen Chen, Steven Curl,
Roger Dear, Zvi Drezner, Ben Edmondson,
Nicholas Farnum, Daryoush Farsi, S. Hanizavareh,
William Heitzman, Bhushan Kapoor, Mabel Kung,
Bharpat Lakhanpal, Ram Lal, William Lau,
John Lawrence, Dole Minh, Barry Pasternack,
Sorel Reisman, Herbert Rutemiller, Joseph Sherif,
Sohan Sihota, Ram Singhanian, LaVerne Stanton,
David Stoller, Ronald Suich,
Viswanth Yegnanarayanan

Advisers

The Business Advising Center, Langsdorf Hall 700, provides information on admissions, curriculum and graduation requirements; registration and grading procedures; residence and similar academic matters. In addition, the Management Science Department provides advising about curriculum content and career opportunities:

Graduate Program: John Lawrence, David Stoller

Statistics: Sohan Sihota, LaVerne Stanton, Ronald Suich

Information Systems: Shu-Jen Chen, Mabel Kung, Ram Lal, William Lau, Ram Singhanian

Operations Research: Roger Dear, John Lawrence, David Stoller

INTRODUCTION

Management Science is the application of the scientific method to decision-making in business and government. In practice, nearly all management science problems involve solutions using computers. Three of the major disciplines in management science are operations research, statistics and information systems. *Operations research* uses mathematical and simulation models to provide decision-makers with

quantitative information pertaining to complex business situations. *Statistics* assists decision-makers by using techniques designed to draw inferences from experimental and sampling data. *Information systems* focus on the application of modern computer technology to provide accurate and relevant data to aid decision-making.

Situations that require *operations research* techniques arise in all areas of business: accounting, finance, production, marketing, and research and development. Among the problems addressed by operations research techniques are the determination of inventory strategies, the allocation of scarce resources and the design of service systems. Others include bidding in competitive environments, selection of equipment replacement strategies and scheduling the completion of large projects.

The statistician is often involved in activities such as sales forecasting, quality control and financial analysis. *Statistics* is also concerned with model building and the design of experiments dealing with product testing, surveys and sampling.

Information systems is concerned with the management of large databases and the efficient reporting of timely information to decision makers. It relates to both the data processing hardware and the computer software. The hardware includes the computer and its peripheral equipment. The software is used to create, maintain and retrieve information. Information systems methods integrate mathematical modeling and statistics with modern information and computer technology. These methods are applied to systems management, analysis of information flow, and programming design.

Credential Information

For students interested in a teaching credential, the Department of Management Science offers courses which may be included in the Single Waiver Program in Business.

Further information on the requirements for teaching credentials is found in the Teaching Credential Programs section of this catalog and is also available from the Department of Secondary Education. Students interested in exploring careers in teaching at the elementary or secondary school levels should contact the Office of Admission to Teacher Education, Education Classroom 207.

Prizes in Management Science

Outstanding Management Science Undergraduate Award
Outstanding Management Science Graduate Student Award

BACHELOR OF ARTS IN BUSINESS ADMINISTRATION

See "Business Administration, Management Science Concentration."

MASTER OF BUSINESS ADMINISTRATION

See "Business Administration, Management Science Concentration."

MASTER OF SCIENCE IN MANAGEMENT SCIENCE

The Master of Science in Management Science program provides the conceptual understanding and technical competence for a career in management science. Emphasis is placed on the use of scientific method to allocate resources so as to maximize profit or minimize cost. Specializations include operations research, management information systems and statistics. These techniques are widely used in both private business and public enterprise. Employment opportunities include positions such as management analyst, data processing manager, statistician and forecaster.

The M.S. in Management Science program is scheduled especially for students who are employed full time. Courses are offered during the late afternoon and evening.

The curriculum should appeal to students with undergraduate degrees in business administration, computer science, mathematics, engineering or science. For students with an undergraduate degree in business administration, the 10-course (30-unit) curriculum may be completed in one year (full time) or 2 1/2 years (part time). In addition to a three-course survey of management science methods, the curriculum includes management science applications, electives, and a terminal research project. Students with a bachelor's degree in a field other than business administration must first complete the eight M.B.A. Foundation Courses (26 units) or equivalent undergraduate courses.

Cal State Fullerton is the only university in Orange County accredited by the American Assembly of Collegiate Schools of Business. This assures a rigorous program, a well-qualified faculty, high standards for students, and access to an extensive library system. The qualifications of the M.S. in Management Science faculty include advanced degrees in operations research, statistics and applied mathematics; extensive computer experience; and practical experience in business, industry and government. Cal State Fullerton is the only campus within The California State University offering an M.S. in Management Science.

Most graduate courses in the School of Business Administration and Economics require "classified SBAE status" and are open only to students with classified standing in the M.S. in Management Science, M.S. in Taxation, M.A. in Economics, M.B.A. or M.S. in Accountancy programs.

Students meeting the following requirements will be admitted to *postbaccalaureate unclassified* standing:

1. Acceptable bachelor's degree from an institution accredited by a regional accrediting association, or equivalent.
2. Grade-point average of at least 2.5 in the last 60 semester units attempted and in good standing at last college attended.

Note: Postbaccalaureate unclassified students may enroll in undergraduate courses (100 through 400 level) but are generally ineligible for graduate business courses (500 level). Such students may wish

to take undergraduate courses which are necessary to meet the requirements for classified standing (see below). Upon completing the requirements, the student may file an "Application for Change of Academic Objective/Graduate" requesting admission to the M.S. in Management Science program. Admission to the university as a postbaccalaureate unclassified student *does not* constitute admission to the M.S. in Management Science program, does not confer priority, nor does it guarantee future admission. Students planning to apply for admission to the M.S. in Management Science program should confer with the graduate adviser in the School of Business Administration and Economics.

Students meeting the following *additional* requirements will be admitted to the M.S. in Management Science program with conditionally classified standing:

3. Combination of grade-point average and score on the Graduate Management Admission Test (GMAT) sufficient to yield a score of at least 950 according to one of the following formulas. Due to limited facilities and resources in the School of Business Administration and Economics, *a higher score may be required of all applicants.*

A. If overall undergraduate GPA is at least 2.5 and GMAT is at least 450, then score = $(\text{GPA} \times 200) + \text{GMAT}$.

B. If overall undergraduate GPA is below 2.5 or GMAT is below 450, then score = $(\text{GPA} \times 200) + \text{GMAT} - 50$.

C. If GPA is based on the last 60 semester units of course work,* then score = $(\text{GPA} \times 200) + \text{GMAT} - 100$.

Note: Conditionally classified students may take a limited number of graduate courses (500 level) subject to the approval of the graduate adviser of the School of Business Administration and Economics. Students may take whatever courses are necessary to fulfill requirement 4 (below) while enrolled as conditionally classified students. In addition, a maximum of 9 units (three courses) from the M.S. in Management Science curriculum may be taken while in conditionally classified standing.

Students meeting the following additional requirements will be advanced to classified standing. Such students are eligible to take graduate courses for which they are qualified.

4. A bachelor's degree with a major in business administration which meets the requirements stated in this catalog for such degrees. The degree must include calculus and computer programming equivalent to passing Mathematics 135, Business Calculus (3 units), and Management Science 264, Introduction to Computer Programming (2 units), with grades of at least C. Courses in the major are to be no more than seven years old, and must have at least a 3.0 (B) grade-point average. Courses with grades lower than C must be repeated. *Applicants with a bachelors's degree in a field other than Business Administration may meet this requirement by passing the courses in calculus and computer programming (above) with grades of at least C, and also the Foundation Courses within*

the curriculum of the Master of Business Administration (26 units, including Accounting 510; Economics 515; Finance 517; Management 516, 518; Management Science 513, 514 and Marketing 519).

*All work within any given quarter or semester must be included even though that will result in more than 60 semester units. The units to be included in the last 60 semester units may come only from the following: (1) work taken in postbaccalaureate status during the last seven years toward fulfilling M.S. in Management Science course work requirements; (2) units taken under a prescribed remedial program agreed to by the Associate Dean, School of Business Administration and Economics; (3) units earned prior to the bachelor's degree.

5. Approval of study plan.

Curriculum

The curriculum requires 30 semester units of course work beyond the baccalaureate degree. At least 18 of the 30 units required for the degree must be at the graduate level. A grade-point average of 3.0 (B) is required. Any study plan course in which a D is received must be repeated and must receive at least a C grade regardless of the overall GPA of the student.

The requirement for a concentration is to satisfactorily complete at least 15 units of courses (required and/or elective) in a specified field: Management Information Systems, Operations Research or Statistics. A concentration is not required for the degree.

Required Courses (9 units)

Manag Sci 526 Forecasting, Decision Analysis and Experimental Design (3)

Manag Sci 550 Special Topics on Information Systems Design and Data Communication (3)

and either Manag Sci 560 Advanced Deterministic Models (3)

or Manag Sci 561 Advanced Probabilistic Models (3)

Management Science Applications and Electives (18 units)

Courses to be selected in consultation with, and approved by, the student's adviser from the following:

Applications in Business and Economics (3 units)

Accounting 511 Seminar in Managerial Accounting (3)

Note: Students with credit for cost accounting may substitute Accounting 521, Seminar in Administrative Accounting (3)

Economics 502 Adv. Microeconomic Analysis (3)

Finance 523 Seminar in Corporate Financial Management (3)

Management 444 Project Management (3)

or Marketing 525 Seminar in Marketing Problems (3)

Electives (15 units)

Courses may be chosen from one or more of the following fields:

Operations Research:

A general approach to decision-making based on scientific method.

- Manag Sci 560 Advanced Deterministic Models (3)
 Manag Sci 561 Advanced Probabilistic Models (3)
 Manag Sci 580 Linear Programming (3)
 Manag Sci 585 Queueing and Stochastic Processes in Business and Economics (3)

Management Information Systems:

Computer methods for collecting, analyzing and reporting data to aid in management decision making.

- Manag Sci 404 Analysis of Information Systems (3)
 Manag Sci 408 Data Base Management Systems (3)
 or Manag Sci 555 Data Structures and Data Base Management (3)
 Manag Sci 409 Distributed Data Processing (3)
 Manag Sci 411 Data Process with Small Computers (3)
 Manag Sci 416 Computer Performance Evaluation (3)
 Manag Sci 418 Privacy, Security and Data Process (3)

Statistics:

Collecting, analyzing, and interpreting data.

- Manag Sci 420 Applied Statistical Forecasting (3)
 Manag Sci 422 Surveys and Sample Design and Applications (3)
 Manag Sci 461 Statistical Theory for Management Science (4)
 Manag Sci 467 Statistical Quality Control (3)
 Manag Sci 572 Design of Experiments (3)
 Manag Sci 575 Multivariate Analysis (3)

Variable Topic:

- Manag Sci 590 Seminar in Management Science (3)

Terminal Evaluation

- Manag Sci 576 Business Modeling and Simulation Comprehensive Exam

Management Science Courses

263 Introduction to Information Systems and Micro-Computer Applications (2)

Concepts of micro and mainframe computers and peripheral equipment; hardware and software concepts; representation of Data; auxiliary storage and file organization; data communications. Hands-on examples of business applications in micro-computer classroom. Students may not receive credit for both Management Science 263 and 265.

264 Introduction to Computer Programming (2)

Computer programming in the BASIC language, including file processing and other applications to business data processing.

265 Introduction to Information Systems and Computer Programming (3)

Introduction to information systems; computer organization and problem-solving concepts; computer programming in the BASIC language, including file processing; applications to

business data processing. Micro Computer applications and hands-on examples in a microcomputer classroom.

265L Computer Programming Lab (1)

Corequisite: Management Science 265. Hands-on computer programming experience for common business problems using spread sheets, word processing, BASIC, data base management and graphics software.

270 File Concepts and COBOL Programming (4)

Prerequisite: Management Science 264 or 265 or Computer Science 112 or equivalent. Structured COBOL; multiple-level table handling, subscripting and indexing; file organization documentation; report generation; sequential file updating. (Same as Computer Science 270)

300 Elements of Information System Design and Data Communication (3)

Prerequisite: Management Science 270. Search, sort; tape and disk; record format layouts, storage capacity, I/O timings; structures; COBOL illustrations; data communications fundamentals; computer networks.

302 Software Systems for Decision Support (3)

Prerequisites: Management Science 265 and Finance 320 and Accounting 302. Roles and uses of computer supported decision modeling and analysis packages in the context of modern management. Formulation and implementation of models. Case studies and computer projects.

310 Advanced COBOL Programming (3)

Prerequisite: Management Science 270 or consent of the instructor. Advanced COBOL features: Indexed and direct file processing, report writer, sort feature, declarative and linkage sections, segmentation. Overlay structure, survey of job control language, libraries. Direct access. Hardware devices.

333 File Structures in Basic Programming (3)

Prerequisite: Management Science 265, Accounting 201A, Accounting 201B, or consent of instructor. Advanced BASIC features: sequential and relative files, sorting and searching, error checking and business system design.

361 Probability and Statistical Methods in Business and Economics (4)

Prerequisites: Math 135 and Management Science 265 or equivalents. Probability concepts; expectations; descriptive statistics; discrete and continuous random variables; sampling; estimation; hypothesis testing; simple and multiple regression; time series; forecasting; nonparametric statistics.

362 Management Science Methods in Business and Economics (3)

Prerequisite: Management Science 361 (may be taken concurrently). Mathematical methods and their application to business and economic problems, e.g., production control, scheduling, inventory control, PERT, decision and network analyses, simulation and queueing. Elementary mathematical optimization and production models.

363 Management Science (3)

Prerequisites: Management Science 361 or both Math 335 or 338 and Computer Science 112 or 121. The basic concepts of management science and its relationship to economics and decision theory. Optimization in continuous models, linear programming, queueing and inventory models, network analysis and dynamic programming, and production scheduling and control.

404 Analysis of Information Systems (3)

Prerequisite: Management Science 300 or both Management Science 270 and Computer Science 331 or equivalent. Software feasibility studies; information processing systems; data processing project organization; cost effectiveness and system optimization, hardware/software selection; structured systems design; case studies and computer projects.

408 Data Base Management Systems (3)

Prerequisites: Management Science 300 and Management 344. (Prerequisite for computer science majors is Computer Science 331.) Integrated data base systems; logical organization; data description language (DDL); data manipulation language (DML); data independence; relational data bases; selected data base management systems (DBMS). (Same as Computer Science 408).

409 Distributed Data Processing (3)

Prerequisite: Management Science 300. Hardware and software developments in transmission technology; distributed data bases; network architectures; ISO layered models; interface problems; distributed network design and cost analysis; network topology and protocols, tradeoffs among distributed and centralized processing systems, interface problems and case studies.

411 Data Processing with Small Computers (3)

Prerequisite: Management Science 300. Small computer technology in data processing; selecting and designing business oriented small computer systems; implementing, maintaining, supporting and evaluating these systems.

416 Computer Performance Evaluation (3)

(Same as Computer Science 416)

418 Privacy, Security and Data Processing (3)

Prerequisite: Management Science 300. Security and privacy problems associated with the use of computer systems; ways to minimize risks and losses.

420 Applied Statistical Forecasting (3)

Prerequisite: Management Science 361. Statistical methods applied to problems in business and industry; practical multiple regression models with computer solutions; basic techniques in time-series analysis of trend, cyclical and seasonal components; correlation of time-series and forecasting with the computer.

422 Surveys and Sampling Design and Applications (3)

Prerequisite: Management Science 361. Principles for designing business and economic surveys. Applications in accounting, marketing research, economic statistics and the social sciences. Sampling; simple random, stratified and multistage design; construction of sampling frames; detecting and controlling non-sampling errors.

440 Deterministic Models in Management Science (4)

Prerequisite: Management Science 362. Deterministic mathematical modeling and solution techniques, including intermediate linear programming, network models, integer programming, dynamic programming.

441 Probabilistics Models in Management Science (4)

Prerequisite: Management Science 362. Probabilistic mathematical modeling and solution techniques for business, including quality control and forecasting models, Markov processes, intermediate queueing theory, probabilistic inventory models.

448 Computer Simulation in Business and Economics (3)

Prerequisites: Management Science 264 and 361 (or equivalents) and Management Science 362 (or 363). Computer generation of discrete and continuous random variables, their use in computer simulation. Applications include queueing, communications, computer systems, economics, gaming, inventory, scheduling and other management science topics.

461 Statistical Theory for Management Science (4)

Prerequisite: Management Science 361. Review of mathematical topics needed for statistical theory. Distribution, theory, moment generating functions, central limit theorem. Estimation theory, maximum likelihood, least squares estimation. Hypothesis testing, Neyman-Pearson Lemma. Likelihood ratio tests. Use of statistical software packages.

467 Statistical Quality Control (3)

Prerequisite: Management Science 361. Control charts for variables, percent defective and defects. Tolerances, process capacity; special control charts, acceptance sampling and batch processing problems. Bayesian aspects of process control.

495 Internship (1-3)

Prerequisites: Management Science 361 and 362, (or 363) and major in management science, or Management Science 300 and major in management information systems or a major in international business, consent of department internship adviser, and at least junior standing, 2.5 GPA and one semester in residence at the university. Planned and supervised work experience. May be repeated for credit up to a total of six units. Credit/No Credit grading only.

499 Independent Study (1-3)

Prerequisites: Management Science 361 and either 362 or 363, senior standing, and approval by the department chair. Open to qualified students desiring to pursue directed independent inquiry. May be repeated for credit. Not open to students on academic probation.

513 Statistical Analysis and Forecasting Techniques (4)

Prerequisites: Math 135, Management Science 264 (or equivalents) and classified SBAE status. Basic probability and descriptive statistics; sampling techniques; estimation and hypothesis testing; simple and multiple regression, correlation analysis; forecasting; time series; computer packages and other optional topics.

514 Business Modeling and Solution Techniques (4)

Prerequisites: Management Science 513 and classified SBAE status. Linear programming; inventory; PERT-CPM; queueing; simulation, computer application and other optional topics.

526 Forecasting, Decision Analysis, and Experimental Design (3)

Prerequisites: Management Science 514 and classified SBAE status. Time Series Analysis. Trend, cyclical and seasonal components. Statistical decision theory. Fundamental principles of experimental design; interaction. Software packages.

550 Special Topics on Information Systems Design and Data Communication (3)

Prerequisites: Management Science 514 and classified SBAE standing. Information storage requirements; disk timing considerations; file organization and processing characteristics; data structures; modern data communication systems; computer networks.

555 Data Structures and Data Base Management (3)

Prerequisites: Management Science 550 and classified SBAE standing. File structures. Multiple-key retrieval file organizations; Data Description Language (DDL) and Data Manipulation Language (DML); Data independence; hierarchical, network and relational data bases. Students may not receive credit for both Management Science 408 and 555.

560 Advanced Deterministic Models (3)

Prerequisites: Management Science 514 and classified SBAE standing. Advanced linear programming, dynamic programming, integer programming, non-linear programming, business applications. Software packages and computer utilization.

561 Advanced Probabilistic Models (3)

Prerequisites: Management Science 514 and classified SBAE standing. Stochastic processes, Markov processes, advanced queueing and inventory models. Reliability. Software packages and computer utilization.

572 Design of Experiments (3)

Prerequisite: Management Science 513. Experimental design. Analysis of variance, factorial experiments, nested designs, confounding and factorial replications.

575 Multivariate Analysis (3)

Prerequisites: Management Science 513 and 461. The least squares principle; estimation and hypothesis testing in linear regression; multiple and curvilinear regression models; discriminant analysis; principle components analysis; application of multivariate analysis in business and industry.

576 Business Modeling and Simulation (3)

Prerequisite: Management Science 513 or equivalent. Theory and application of modeling and simulation methodology. Probabilistic concepts in simulation; arrival pattern and service times; simulation languages and programming techniques; analysis of output; business applications.

580 Linear Programming (3)

Prerequisite: Management Science 514. Theory and applications of linear programming and extensions. Problem formulation and solution, simplex method, duality, sensitivity analyses, network, transportation and assignment models, and efficient computing techniques for specially structured problems.

585 Queueing and Stochastic Processes in Business and Economics (3)

Prerequisites: Management Science 513 and 514. Single and multichannel queueing systems of Markovian and general arrival and departure streams; birth-death processes, cost models and optimization of queues; Markov analyses; introduction to renewal theory; reliability.

590 Seminar in Management Science (3)

Prerequisites: Management Science 526 and 560 and classified SBAE status. Selected advanced topics and/or case studies in operations research, statistics, and/or management information systems, varying from semester to semester. May be repeated for credit with consent of instructor.

597 Project (3)

Prerequisite: classified SBAE status. Directed independent inquiry. Not open to students on academic probation.

599 Independent Graduate Research (1-3)

Prerequisites: classified SBAE status and consent of department chair. May be repeated for credit. Not open to students on academic probation.

Department of Marketing

Department Chair: Irene Lange

Business Writing Coordinator: John Brugaletta

Department Office: Langsdorf Hall 626

Programs Offered

Bachelor of Arts in Business Administration

Concentration in Marketing

Master of Business Administration

Concentration in Marketing

Faculty

Robert Barath, William Bell, Grady Bruce,
Scott Greene, Paul Hugstad, Robert Jones,
Irene Lange, Ronald Long, Connie Pechmann,
James Taylor, Robert Zimmer

Advisers

The Business Advising Center, Langsdorf Hall 700, provides information on admissions, curriculum and graduation requirements, registration and grading procedures, residence and similar academic matters. In addition, the Marketing Department provides advising on curriculum content and career opportunities:

Advertising
Industrial Marketing
International Marketing
Marketing Management
Marketing Research
Overall Career Advisement

Retailing
Sales Management

James Taylor
Paul Hugstad
Irene Lange
William Bell
Robert Barath
Scott Greene
Connie Pechmann
Grady Bruce
William Bell
Robert Zimmer

INTRODUCTION

Marketing is a basic business function, covering a wide range of activities. It includes studying markets, planning products, pricing them, promoting them, selling them, and then delivering these products to customers. People in wholesaling, retailing, advertising agencies, research firms and transportation companies are all working in the marketing area. Any firm which is reviewing its product policies needs marketers to identify the market, choose the products, find where they can be sold and decide on a price for them.

Seven program emphases are available to students which help to prepare for entry into the job market. They are designed to afford the opportunity to gain both quantitative and qualitative skills. At the same time, each emphasis retains sufficient flexibility to permit particular needs and interests to be pursued through elective course work. The emphases are advertising management, marketing management, marketing research, industrial marketing, retailing, sales management and international marketing.

Credential Information

For students interested in a teaching credential, the Department of Marketing offers courses which may be included in the Single Subject Waiver Program in Business.

Further information on the requirements for teaching credentials is found in the Teaching Programs section of the catalog and is also available from the Department of Secondary Education. Students interested in exploring careers in teaching at the elementary or secondary school levels should contact the Office of Admission to Teacher Education.

Prizes in Marketing

The Michael T. Ashton Memorial Scholarship for Outstanding Leadership.

The Gordon S. Fyfe Memorial Award for Outstanding Academic Achievement.

Outstanding Marketing Student Award.

Sales and Marketing Executives, Inc. Orange County Award.

American Marketing Association. Southern California Chapter Award.

International Marketing Association Award.

The Robert M. Olsen Scholarship Fund Award

BACHELOR OF ARTS IN BUSINESS ADMINISTRATION

See "Business Administration, Marketing Concentration."

MASTER OF BUSINESS ADMINISTRATION DEGREE

See "Business Administration, Marketing Concentration."

Marketing Courses

351 Principles of Marketing (3)

Prerequisite: Economics 202 or 210. How management markets output of the enterprise and obtains revenue. Product management, pricing, promotion, distribution channels. Marketing's role in socio-economic system from viewpoints of consumer, management, social responsibility and government in American and worldwide business.

352 Principles of Retailing (3)

Prerequisite: Marketing 351. Structure, scope, and evaluation of retail institutions; introduction to retail accounting, pricing, and merchandise management; consumer behavior; identifying markets; defining and positioning the retail mix components to convey meaning and bring about differential response.

354 Principles of Advertising (3)

Prerequisite: Marketing 351. The management of the advertising function; the role of advertising in marketing strategy, budgetary considerations, allocation among media, measurement of effectiveness, administration and control, and its economic and social implications. Uses of Behavioral Lab.

356 Professional Selling (3)

Prerequisite: Marketing 351. Salesmanship as an interpersonal influence process. Selling using principles of human behavior. Selling skills and techniques. Uses the Behavioral Lab.

358 Physical Distribution (3)

Prerequisites: Marketing 351 and Manag Sci 265. The physical distribution system and its elements—packaging, transportation, warehousing and inventory management. Physical distribution practices and problems leading to improved system design and effectiveness.

359 Industrial Marketing (3)

Prerequisite: Marketing 351. Marketing of business goods and services to other businesses, government agencies and social institutions by the manufacturer. Market analysis sales forecasting, product strategy, effective use of sales force and industrial advertising media.

370 Consumer Behavior (3)

Prerequisite: Marketing 351. Consumer buying patterns, motivation and search behavior. The consumer decision-making process. Interdisciplinary concepts from economics, sociology, psychology, cultural anthropology and mass communications. Case analyses and research projects.

379 Marketing Research Methods (3)

Prerequisites: Marketing 351 and Manag Sci 361. Marketing research process: problem formulation, identifying data sources, selecting data collection and analysis techniques, preparing research reports. Selecting marketing problems for research. Lecture-discussion, cases.

379L Marketing Research Lab (1)

Corequisite: Marketing 379. Computer methods for solving marketing problems, including marketing planning and decisionmaking. Exercises using spreadsheet, statistical and database software. Exercises in data display. Uses computer lab.

452 Advanced Salesmanship (3)

Prerequisites: Marketing 351 and 356. Negotiation style selling techniques; videotape, audio-tape, structured and unstructured role plays. Sales writing skills. Field case studies.

454 Advertising Management (3)

Prerequisite: Marketing 354. The interrelationships of product planning, advertising management, sales management, financial management and corporate strategy in a competitive environment.

455 Management of the Sales Force (3)

Prerequisite: Marketing 351. The sales manager in organization; recruiting and selecting salesmen; sales training; formulating compensation and expense plans; supervising and stimulating sales activities; morale; sales planning; evaluating salesmen; and distribution cost analysis. Uses the Behavioral Lab.

456 Retailing Management (3)

Prerequisite: Marketing 352. Retail marketing and financial strategy planning; merchandise management, planning and control; the dynamics of change and the entrepreneurial function; opportunity analysis, strategy and planning.

457 Quantitative Marketing Analysis (3)

Prerequisites: Marketing 351, Manag Sci 361 or consent of instructor. Marketing-management functions; scheduling, evaluating, control. The analysis of marketing processes and systems and the development of appropriate action recommendations.

458 International Marketing Policies (3)

Prerequisites: at least one upper-division course in economics, finance, management and marketing and senior standing. Domestic marketing systems. Marketing problems across national boundaries and within various national markets. Business policies, including ethical implications, for international business firms. Integrative cases. Individual and team efforts.

459 Marketing Problems (3)

Prerequisites: senior standing, two advanced marketing courses and marketing 379. Marketing problems of firm and society. Integrative interactions between marketing activities and the interfaces of marketing with finance and production. Case method and current readings.

460 Marketing for Nonprofit Organizations (3)

Prerequisite: Marketing 351. Application of marketing techniques to the nonprofit sector. Use of marketing planning and research to develop effective marketing programs for organizations in health care, education, the arts, public services and related fields.

469 Industrial Marketing Strategy (3)

Prerequisites: Marketing 351 and 359 and Manag Sci 361. Specialized marketing techniques for industrial companies; marketing forecasting; industrial buying models; designing distribution networks; industrial pricing and industrial promotional programs.

479 Research Problems in Marketing (3)

Prerequisite: Marketing 379. Marketing research practicum. Matching research methodologies to problems of market analysis, product planning, advertising, sales forecasting and other marketing activities. Alternative data collection and analysis techniques. Seminars, research projects.

495 Internship (1-3)

Prerequisites: six units of upper division marketing courses, including Marketing 351, major in marketing or international business, consent of department internship adviser, and at least junior standing, 2.5 GPA and one semester in residence at the university. Planned and supervised work experience. May be repeated for credit up to a total of six units. Credit/No Credit only.

499 Independent Study (1-3)

Prerequisites: marketing concentration, senior standing and approval by the department chair. Open to undergraduate students desiring to pursue directed independent inquiry. May be repeated for credit. Not open to students on academic probation.

519 Marketing Management (3)

Prerequisites: Accounting 510, Economics 515, Manag Sci 513, 514, Management 516, 518 (may be taken concurrently) and classified SBAE status. Concepts, principles and techniques used in the administration of the marketing variables. The role of marketing within the context of society and the business firm, social responsibility of business and international marketing.

525 Seminar in Marketing Problems (3)

Prerequisites: Marketing 519 and classified SBAE status. Major marketing problems facing industry: definition of and organization for marketing task; demand analysis; decisions concerning product, price, promotion and trade channels. Use of case method and readings.

558 Seminar in International Marketing (3)

Prerequisites: Marketing 519 or equivalent and classified SBAE status. Comparative international marketing systems; managerial techniques and strategies in multinational and domestic firms engaged in export; and the impact of political, legal, social, economic and cultural forces upon the decision-making process.

597 Project (3)

Prerequisite: classified SBAE status. Directed independent inquiry. Not open to students on academic probation.

599 Independent Graduate Research (1-3)

Prerequisites: classified SBAE status, consent of instructor and approval by department chair. May be repeated for credit. Not open to students on academic probation.

School of Engineering and Computer Science

Dean: John C. Bilello

Programs Offered

Computer Science (B.S., Minor, M.S.)

Engineering (B.S., M.S.)

- Option in Civil Engineering and Engineering Mechanics
- Option in Electrical Engineering
- Option in Mechanical Engineering
- Option in Engineering Science
- Option in Systems Engineering (M.S. only)

The curricula of the School of Engineering and Computer Science are designed to prepare students for careers in engineering and other technical fields and for further study and specialization in advanced graduate work. The faculty of the school is actively involved not only in instruction and scholarship but also in the advisement of students in the school on topics relating to the planning of career and program goals. Cooperative education internship programs are available in each of the school's departments.

Special School Requirements

Electrical Engineering: Because of current excess student demand, this option has been declared impacted. This means that students must meet secondary admission criteria before being admitted to the program. For first-time freshmen, the eligibility index (see Admission Requirements) generally must be higher than for admission to the university. The exact level for admission varies from year to year depending on the applicant pool. For transfer students, a minimum of two semesters of calculus is generally required, along with a college G.P.A. higher than that required for general admission.

Recommended Preparation: For a career in computer science or engineering, sound preparation in mathematics and science is essential. High school preparation should include:

- at least three, preferably four, years mathematics
- chemistry and/or physics, preferably both
- two or three years of foreign language.

Community college preparation should include at the minimum:

- college writing
- calculus
- college chemistry and/or physics
- first course in the major.

Qualifying Examinations: Enrollment in introductory courses is restricted to those who are adequately prepared, as shown by performance on qualifying examinations. In addition, the Entry Level Mathematics (ELM) examination is required of all students.

Undergraduate Student Advisement

Undergraduate students should call the department office of their major to arrange for advising and approval of their study plan. University policy requires students to see an adviser each of their first two semesters and every year thereafter. Three critical times for advising are before registering for the first semester, when selecting electives for the study plan, and two semesters before graduation for a graduation check. Most departments prefer to advise their majors more frequently.

Students interested in programs in the school, but without a declared major should call the Office of the Dean for advisement.

Graduate Student Advisement

Graduate students should consult the graduate adviser in their major department before registering for the first semester. No more than nine units may be completed before an approved study plan is filed.

Program in General Education

Because of high unit requirements for the Bachelor of Science in Engineering, these programs have modified requirements for general education. Students should consult the department for particulars.

Majors in the School of Engineering and Computer Science should take mathematics and other courses in related fields early. General education courses normally should be scheduled throughout the study sequence.

Minority Engineering Program (MEP)

The school sponsors a Minority Engineering Program designed to provide special academic support for under represented minority students (Black, Mexican American, Puerto Rican and American Indian) who are majoring in engineering or computer science. A summer orientation program, scheduling assistance, a study center, student tutoring, and special faculty help are provided to students in the program. Interested students should contact the dean's office for further information.



Department of Computer Science

Department Chair: Nick Mousouris
Vice Chair: Demetrios Michalopoulos
Department Office: Engineering 100G

Programs Offered

Bachelor of Science in Computer Science

Master of Science in Computer Science

Minor in Computer Science

Faculty

Reza Ahmadnia, Morteza Anvari, Carl Cagan, David Falconer, John Giese, Floyd Holliday, Martin Katz, Edward McCormick, Demetrios Michalopoulos, Charles Mosmann, Nick Mousouris, Frank Pagan, Gene Rose, Edward Sowell, Melanie Wolf- Greenberg

INTRODUCTION

Computer science is the science of information. The computer scientist is interested in: effective ways to represent and organize information; algorithms to transform information; languages in which to express algorithms; the logical structures of devices which translate or interpret such languages; the theoretical techniques for insuring the accuracy and minimizing the cost of such processes; and the philosophical foundations of such mechanical intelligence.

The computer science major is designed to provide the student with the foundations of the discipline, as well as the opportunity for specialization. Six objectives are addressed: (1) development of the ability to write programs in a reasonable amount of time, that work correctly, are well documented and are readable; (2) identification of general types of problems that are amenable to computer solutions, and the various tools necessary for solving such problems; (3) development of the ability to work either as an individual or as a member of a software development team; (4) development of an understanding of basic computer architecture; (5) preparation to pursue in-depth training in one or more application areas or further education in computer science; (6) development of the ability to write and speak effectively.

As a result, the degree prepares students for careers in applications programming, systems programming and systems analysis as well as entrance into graduate and professional schools. The curriculum emphasizes fundamental concepts exemplified by various types of programming languages, computer architectures, operating systems and data structures.

BACHELOR OF SCIENCE IN COMPUTER SCIENCE

Each Computer Science major is required to complete a minimum of 66 units of coursework related to the major. The degree program assumes that the student has already obtained a working knowledge of at least one high level programming language such as Pascal or BASIC. Students without this knowledge may be required to take up to six additional units of coursework beyond those normally required by the major.

No course taken as part of the major requirements can be taken on a Credit/No Credit basis, unless the course is offered only on a Credit/No Credit basis, or if the course is passed by a challenge examination. Further, no class with a grade of "D" or lower will be counted toward the major.

Computer Science Placement Examination

Before entry into the first three courses required by the major (Computer Science 231, 241, and 245), the student is required to take a placement examination or complete the required prerequisite courses offered by the Department.

Computer Science Core (43 units)

Lower-Division Core (25 units)

Computer Sci 231 File System Concepts (3)
Computer Sci 241 Low-level Language Systems (3)
Computer Sci 245 Computer Logic and Architecture (3)
Computer Sci 245L Computer Logic and Architecture Laboratory (2)
Mathematics 150A,B Analytical Geometry and Calculus (4,4)
Mathematics 270A,B Mathematical Structures (3,3)

Upper-Division Core (18 units)

Computer Sci 311 Concepts Software Documentation (3)
Computer Sci 321 High-level Language Concepts (3)
Computer Sci 331 Information Structure Concepts (3)
Computer Sci 351 Operating Systems Concepts (3)
Computer Sci 373 Formal Method Concepts (3)
Mathematics 338 Statistics Applied to Natural Sciences (3)

Upper Division Writing Requirement

Computer Science 311, which meets the University requirement for an upper division writing course, must be completed before the senior year.

Programming Language Workshops (3 units)

Three units of programming workshop classes must be selected from Computer Science 223A-Z (High-level Language Workshops), 270 (File Concepts and COBOL Programming), and 243A-Z (Low-level Language Workshops). Each section of Computer Science 223A-Z and 243A-Z is devoted to a different language and the student may choose any combination of sections to meet the requirement. Course descriptions should be consulted for specific details.

Technical Electives (20-22 units)

Each Computer Science major must take 20-22 units of technical electives which must be approved in advance by a departmental adviser. These electives shall constitute a coherent body of study consistent with the student's professional and educational objectives. No more than six units of course work may be selected from Computer Science courses numbered 490 through 499. Also, Computer Science 495 may not be repeated for credit.

MINOR IN COMPUTER SCIENCE

A Computer Science minor shall consist of 21 units of course work which shall include Computer Science 131, 231, 241, 245 and six units of adviser-approved upper division computer science elective courses and 3 units of programming language workshops (Computer Science 223A-Z, 243A-Z, 270). The upper division courses must be taken in residence.

MASTER OF SCIENCE IN COMPUTER SCIENCE

Admission to Graduate Standing: Conditionally Classified

A bachelor's degree from an accredited institution with a grade-point average of at least 2.5 in the last 60 semester units attempted is required. Additionally, nine units of computer science course work with a grade-point average of at least 3.0 is required. Any deficiencies must be made up and will require six or more units of adviser-approved course work with at least a 3.0 average in addition to those required for the degree. The applicant must submit Graduate Record Examination scores. Normally a combined Verbal and Quantitative score of 1100 is required for admission.

Classified Graduate Standing

Achievement of this status requires the following:

1. Approval of a formal study plan (see description below) by the Computer Science Graduate Committee and the dean of graduate studies.
2. Satisfactory completion of no more than nine units on the study plan.
3. Satisfactory completion of the following courses or equivalents including prerequisites: Computer Science 223, 231, 241, 245, 245L, 321, 331, 351, 373, 408, 423 and Mathematics 270A,B.
4. Completion of requirements for meeting the Graduate Level Writing Requirement.

Talented professional computer scientists have traditionally come from a diversity of undergraduate preparations. The listed courses have been carefully selected to provide an adequate basis for graduate work while not unfairly precluding admission of persons without a bachelor's degree in computer science. *It should be noted, however, that each of these courses has prerequisites and the student without preparation in a closely related degree may have considerable work to complete beyond the courses listed here.* Reference should be made to

the catalog descriptions for prerequisites of each course deficiency.

These courses and their prerequisites constitute program prerequisites. Students are advised not to enroll in courses for which they have prerequisite deficiencies. Students with experience equivalent to any or all of these prerequisite courses are encouraged to satisfy such prerequisites by advanced placement examination. Consult the computer science graduate adviser for further information.

Study Plan

Prior to admission to classified graduate standing in computer science, the student with the aid of the computer science graduate adviser shall prepare and submit for approval by the computer science department graduate committee a formal study plan consisting of a minimum of 30 units of 400 level and graduate course work.

This shall include Computer Science 412, 461, 563, 589, 597 or 598, and 15 units of electives (9 units must be at the 500-level). At least 15 units shall represent courses offered by the Department of Computer Science. Courses offered by other disciplines, not listed here, and related to the students' objectives in computer science may be approved by petition to the Department of Computer Science.

All course work in the study plan must be completed with a GPA of at least 3.0.

Graduate Student Advisement

The graduate program adviser provides overall supervision of the graduate program. The individual student chooses his adviser from the full-time faculty of the Computer Science Department on the basis of his particular interests and objectives.

Computer Science Courses

Prerequisites for computer science courses may be waived only by written consent of a departmental adviser.

101 The Computing World (3)

The impact of computers on today's society. Fundamental computer concepts and problem solving techniques. The role of computers in business, industry, education, government and our everyday lives.

103 Introduction to Personal Computer Applications (3)

Introduction to use and application of personal computers: word processing, spread-sheets, database systems, computer languages. Evaluation of personal computers and software. (2 hours lecture/2 hours activity per week)

112 Introduction to Computer Programming (3)

Prerequisite: three years of high school mathematics including two years of algebra. Provides programming experience in BASIC programming language. Problem solving and structured programming are emphasized. (2 hours lecture, 2 hours laboratory)

121 Programming Concepts (3)

Prerequisite: three years high school mathematics including trigonometry. An introduction to programming of digital computers using Pascal subroutines, functions, and structure of

algorithms; elementary input/output; arrays; strings, and data types; recursion. (2 hours lecture, 2 hours laboratory).

123 Programming Concepts Review (1)

Prerequisites: three years high school mathematics including trigonometry and sufficient score on Computer Science Placement Exam. Accelerated coverage of Computer Science 121 for students who wish to take Computer Science 131 but lack sufficient knowledge of Pascal.

131 Data Structures Concepts (3)

Prerequisites: Computer Science 121, 123, or three years high school mathematics including trigonometry and sufficient score on the Computer Science Placement Exam. The application of simple data structures including linked lists, stacks, multi-dimensional arrays and sequential text files. Formatted input/output, text editing, and non-numeric processing.

223 High-level Language Workshops (1-3)

Workshops in the use of various high-level programming languages. Offered Credit/No Credit only. Prerequisites and unit values vary.

223A Workshop in ADA (2)

Prerequisite: Computer Science 131.

223B Workshop in Advanced ADA (2)

Prerequisite: Computer Science 223A.

223D Workshop in PROLOG (2)

Prerequisites: Computer Science 131 and Mathematics 270A. Workshop in Prolog (2).

223F Workshop in FORTRAN-77 (2)

Prerequisite: Computer Science 131. (Not open to students who have completed Engineering 205.)

223G Workshop in BASIC-PLUS (2)

Prerequisite: Computer Science 131. (Not open to students who have completed other course work in BASIC).

223K Workshop in LISP (2)

Prerequisite: Computer Science 131.

223N Workshop in Non-procedural Programming (2)

Prerequisite: Computer Science 131.

223P Workshop in PL/I (2)

Prerequisites: Computer Science 131 or 270.

223Q Workshop in Advanced PL/I (2)

Prerequisite: Computer Science 223P.

223R Workshop in Report Program Generator (1)

Prerequisite: Computer Science 131.

223S Workshop in SNOBOL (1)

Prerequisite: Computer Science 131.

223T Workshop in Threaded Languages (3)

Prerequisite: Computer Science 131.

223U Workshop in C (2)

Prerequisite: Computer Science 131.

223Z Workshop in APL (2)

Prerequisite: Computer Science 131.

231 File System Concepts (3)

Prerequisite: Computer Science 131 or sufficient score on the Computer Science Placement Exam. Characteristics

and utilization of bulk storage devices. B-trees and plex structures. Sequential and random access.

241 Low-level Language Systems (3)

Prerequisite: Computer Science 131 or sufficient score on the Computer Science Placement Exam. The structure of low-level computer languages. Machine, assembly, and macro language programming. Principles of assembler operation. (Same as Electrical Engineering 241)

243 Low-level Language Workshops (1)

Prerequisite: Computer Science 241. Workshops in the use of specific low-level programming languages. See list following. Offered Credit/No Credit only.

243A Workshop in 6502 Assembly Language

243C Workshop in CDC COMPASS

243E Workshop in 6800 Assembly Language

243F Workshop in 68000 Assembly Language

243J Workshop in IBM Basic Assembly Language

243M Workshop in Advanced MACRO-11

243V Workshop in VAX Assembly Language

243X Workshop in Z80/8080/8085 Assembly Language

243Y Workshop in 8086/8088 Assembly Language

243Z Workshop in Z8000 Assembly Language

245 Computer Logic and Architecture (3)

(Same as Electrical Engineering 245)

245L Computer Logic and Architecture Laboratory (2)

(Same as Electrical Engineering 245L)

253 Operating System Workshops (2)

Prerequisite: Computer Science 241. Workshops in the use of specific operating systems. See list following. Offered Credit/No Credit only.

253C Workshop in CP/M

253D Workshop in MS-DOS

253M Workshop in MP/M

253N Workshop in NOS

253P Workshop in UCSD P-System

253R Workshop in RSTS

253S Workshop in OS/370

253U Workshop in UNIX

253V Workshop in VMS

270 File Concepts and COBOL Programming (4)

(Same as Management Science 270)

311 Concepts of Software Documentation (3)

Prerequisites: Computer Science 231, 241, 245 and English 101. Practice in developing documentation skills as used in the computer field. Informal and formal documents used in problem analysis, software development and maintenance activities.

313 The Computer Impact (3)

Prerequisite: upper division standing. Developing role of computers in today's world. Effect of computers on environments and public attitude affecting their use. Emphasis on impact of science and technology on human institutions, social values, and human self-image.

321 High-Level Language Concepts (3)

Prerequisites: Computer Science 231, 241 and 245. Language definition concepts. Data types and structures. Control structures and data flow. Run-time considerations. Interpretive languages. Introduction to lexical analysis and parsing.

331 Information Structure Concepts (3)

Prerequisites: Computer Science 231, 241, 245. Corequisite: Mathematics 270B. Advanced data structures, sorting, searching and record oriented file concepts. Brief introduction to database systems and query languages.

351 Operating Systems Concepts (3)

Prerequisites: Computer Science 231, 241 and 245. Resource management, memory organization, input/output, control process synchronization and other concepts as related to the objectives of multi-user operating systems.

371 Introduction to Combinatorics (3)

(Same as Math 371)

373 Formal Method Concepts (3)

Prerequisite: Computer Science 331. Algorithmic concepts; models of computation; foundations of programming languages; unsolvable problems; context-free languages, machines and grammars.

381 Knowledge Engineering (3)

Prerequisites: Completion of Critical Thinking and Mathematical Concepts of General Education Program. Understanding and intelligence within the context of knowledge engineering; knowledge structures; representative artificial intelligence programs; machine learning; effects of knowledge engineering.

404 Introduction to Microprocessors and Microcomputers (3)

(Same as Engineering 404)

408 Database Management Techniques (3)

(Same as Management Science 408)

411 Computers and Society (3)

Prerequisite: Computer Science 311. The developing role of computers in today's world. Effect of computers on the environments in which they are applied and public attitudes affecting computer use. Emphasis on ethical, legal and educational responsibilities of the computer professional.

412 Computer Architecture (3)

(Same as Electrical Engineering 412)

416 Computer Performance Evaluation (3)

Prerequisites: Computer Science 351 or Management Science 310; Management Science 461 or Engineering 423 or Mathematics 435. The application of statistics, queuing theory and simulation to the evaluation of alternative strategies for computer system configuration. (Same as Management Science 416)

423 Language Processor Techniques (3)

Prerequisites: Computer Science 321, 331 and 373. Concepts behind the design and implementation of programming language processors such as compilers and interpreters. The design of a small compiler from a software engineering perspective.

433 Data Security and Encryption Techniques (3)

Prerequisite: Computer Science 331. System security and encryption. Current issues in security, encryption and privacy of computer based systems.

457 Computer Communications (3)

Prerequisite: Computer Science 351. An introduction to digital data communications. Terminology, networks and their components, common-carrier services, telecommunication facilities, terminals, error control, multiplexing and concentration techniques.

459 Micro-Computer Software Systems (3)

Prerequisite: Computer Science 351 or equivalent. The design and implementation of software. Analysis of the software system of an existing microcomputer and work on a team to implement a significant programming assignment.

461 Software Engineering Techniques (3)

Prerequisites: Computer Science 311, 321, 331 and 351. The design and development of large software systems. Organization and control of the system development process. Students will implement and discuss large scale team projects.

465 Principles of Computer Graphics (3)

Prerequisite: Computer Science 331. Examination and analysis of computer graphics; software structures, display processor organization, graphical input/output devices, display files. Algorithmic techniques for clipping, windowing, character generation and viewpoint transformation.

467 Interactive System Techniques (3)

Prerequisite: Computer Science 461. Methodologies for the communication of textual data between man and machine. Consideration of both the input and display of individual characters as well as large constructs. Student will implement several projects.

471 Formal Languages and Automata (3)

Prerequisite: Computer Science 373. Finite and infinite languages; the formal relation between generators and acceptors; types of formal grammars; decidability and partial decidability.

473 Theory of Computation (3)

Prerequisite: Computer Science 373. The formal theory of computation, the concepts of decidability, algorithms, procedures and the theoretical foundations of computer science.

475 Analysis of Algorithms (3)

Prerequisite: Computer Science 373. Analytic techniques for the determination of algorithm efficiency in time and memory requirements. NP-complete problems, complexity hierarchies, and provably intractable problems.

477 Cybernetics and Information Theory (3)

Prerequisites: Computer Science 373 and Mathematics 250B. Formal theories underlying artificial intelligence. Cybernetics, information theory, decision models, Shannon's theorem, adaptive machines, search techniques, stochastic automata, time series analysis and reliability theory.

481 Artificial Intelligence (3)

Prerequisites: Computer Science 223K and 331. Topics of current interest from heuristic programming, pattern recognition, learning systems, problem solving systems and formal symbol manipulating systems.

483 Pattern Recognition Techniques (3)

Prerequisites: Computer Science 331 and Mathematics 250B and 338. Classification techniques, discriminant functions, training algorithms, potential function theory, supervised and unsupervised learning, feature selection, clustering techniques, multidimensional rotations and rank ordering relations.

495 Internship in Computer Science (1-3)

Prerequisite: computer science or related major and consent of instructor. Practical experience relevant to computer science in government or private agencies.

499 Independent Study (1-3)

Prerequisite: approval by the undergraduate coordinator. Special topic in Computer Science, selected in consultation with and completed under the supervision of instructor.

521 Compiler Design (3)

Prerequisite: Computer Science 373 and 423 or equivalents. Techniques for the design of compilers and their relations to formal automata and formal grammars.

531 Design of Database Management Systems (3)

Prerequisite: Computer Science 408. Implementation techniques for query analysis, data allocation, concurrency control, data structures, and distributed databases. New database models and recent developments in database technology. Student projects directed to specific design problems.

551 Operating Systems Design (3)

Prerequisite: Computer Science 351 or equivalent. Design and evaluation techniques for controlling automatic resource allocation, providing efficient programming environments and appropriate user access to the system, and sharing the problem solving facilities.

557 Microprogramming and Emulation (3)

(Same as Electrical Engineering 557)

563 Topics in Software Engineering (3)

Prerequisites: Computer Science 461 and graduate standing in Computer Science. Current topics in software engineering such as verification and validation, configuration management, and software engineering economy.

571 Formal Language and Automata (3)

Prerequisite: Computer Science 471 or 473. Finite and infinite languages; the formal relation between generators and acceptors; types of formal grammars; decidability and partial decidability.

581 Applications of Artificial Intelligence (3)

Prerequisites: Computer Science 481 and graduate standing in Computer Science. Current applications in artificial intelligence such as expert systems, fuzzy systems, machine vision and natural language processing.

589 Seminar in Computer Science (3)

Limited to students who have completed at least 6 units of 500-level courses in Computer Science. Current topics, research advances, updating of concepts, and verification of principles of Computer Science. Possible topics include: Large-scale parallelism; design of user interface; computers in instruction.

597 Project (1-3)

Prerequisites: classified graduate standing and approval of the computer science graduate adviser.

598 Thesis (1-3)

Prerequisites: classified graduate standing and approval of the computer science graduate adviser.

599 Independent Graduate Research (1-3)

Prerequisites: classified graduate standing and approval by the computer science graduate adviser. Special topic in computer science, selected in consultation with and completed under supervision of instructor.

Departments of Engineering

Programs Offered

Bachelor of Science in Engineering

- Option in Civil Engineering and Engineering Mechanics
- Option in Electrical Engineering
- Option in Mechanical Engineering
- Option in Engineering Science

Master of Science in Engineering

- Option in Civil Engineering and Engineering Mechanics
- Option in Electrical Engineering
- Option in Mechanical Engineering
- Option in Systems Engineering
- Option in Engineering Science

INTRODUCTION

The undergraduate engineering program has a broad base of science, mathematics, social sciences, humanities and engineering science, coupled with a specialization in one of the options. Students are thus prepared to enter directly into engineering practice or to continue further education at the graduate level. The Bachelor of Science Degree in Engineering, with options in Civil, Electrical and Mechanical Engineering, is accredited by the Accreditation Board for Engineering and Technology (ABET).

Preparation

The entering student should bring a *high school preparation* including two years of algebra, geometry, trigonometry, and one year of physics or chemistry. Students deficient in mathematics or chemistry must take special preparatory courses, i.e., Mathematics 100 and Chemistry 115, which will not carry credit for the major. (See Mathematics Section for Entry Level Mathematics test and Math-Science Qualifying Examination requirements.) All courses taken in fulfillment of the requirements for the Bachelor of Science in Engineering degree must be taken under Grade Option 1.

Transfer Students

A transfer student shall complete a minimum of 30 units in residence of which at least 15 shall be taken in upper-division engineering courses. Work taken at another college or university on which a grade of D was earned may not be substituted for upper-division courses.

A smooth transition from a community college into upper-division engineering is assured when the following program, as a minimum, has been completed. Students deficient in any of these areas may look to the summer session bulletin for offerings that may make up any deficiencies:

*Minimum Number of
Semester Units*

Analytic Geometry and Calculus	16
Chemistry (for engineering and science majors):	5 or 8
Physics (for engineering and science majors):	8 or 12
Engineering graphics	3
Computer programming (FORTRAN)	3
Analytical mechanics (statics)	3

Advisers

Students should seek advisement upon entering the program and must meet with an adviser to prepare an approved study plan of technical electives prior to taking elective courses. Appointments are arranged in the department office.

BACHELOR OF SCIENCE IN ENGINEERING

The programs consist of: (1) a foundation in mathematics and science (36 units), (2) a core of engineering courses (24 units), (3) a sequence of courses in one of the options (45 units) which include both required courses and technical electives, and (4) courses in arts and humanities to fulfill the General Education Requirements.

Note: Graduate courses are not open to undergraduate students without specific approval of the department chair.

Math and Science Foundation Courses for All Engineering Students

Mathematics 150A	Analytic Geometry and Calculus (4)
Mathematics 150B	Analytic Geometry and Calculus (4)
Mathematics 250A	Intermediate Calculus (4)
Mathematics 250B	Intermediate Calculus (4)
Biological Science 101	Elements of Biology (3)
Chemistry 120A	General Chemistry (5)
Physics 225A, 225AL	Fundamental Physics, Mechanics & Lab (4)
Physics 225B, 225BL	Fundamental Physics, Electricity & Magnetism & Lab (4)
Physics 225C, 225CL	Fundamental Physics, Modern Physics & Lab (4) (required in the Electrical and Mechanical Engineering Option) or Chemistry 125 (required in the Civil Engineering Option).

Engineering Core Courses for All Engineering Students

All undergraduate engineering students are required to complete the following 24 units of engineering core courses regardless of the particular Option selected by the student.

EG-ME 102	Graphical Communications (3)
EG-CE 201	Statics (3)
EG-EE 203	Electrical Circuits (3)
EG-GN 205	Digital Computation (3)
EG-CE 302	Dynamics (3)
EG-ME 304	Thermodynamics (3)
EG-ME 306A	Unified Laboratory (1)
EG-GN 308	Engineering Analysis (3)
EG-GN 314	Engineering Economy (2)

Internships

Internship in Engineering (EG-GN 490) provides practical work experience which integrates with the student's classroom studies.

General Education Program for B.S. in Engineering

(Refer to current class schedule for specific courses)

A. Communications Skills 12 units

1. Written Communication, English 101	3
2. Oral Communication	3
3. Critical Thinking*	3
4. Upper-Division Writing Requirement	3

B. Science and Mathematical Concepts 16 units

1. Fundamentals of Physical Science	
a. Chemistry 120A	5
b. Physics 225A, 225AL	4
2. Fundamentals of Biological Science:	
Biological Science 101	3
3. Mathematical Concepts	
Mathematics 150A	4

C. Arts and Humanities 9-12 units

1. Performing and Visual Arts*	3
2. Participatory Experience	
EG-ME 102 Graphical Communications	3
3. Cultural Diversity (either C.3 or D.3)*	0-3
4. Literary/Language Arts and Humanities*	3

D.,E.,F. Social Science/History

Institutions and Values

15-18 units

D1 Fundamentals of Social Science*	3
D2 Implications and Explorations	
EG-GN 314 Engineering Economy (2)	
EG-EE 370, EG-ME 370 or EG-CE 495	
Seminar in Engineering (1)	3
D3 Cultural Diversity in the	
Social Sciences (either D.3 or C.3)*	0-3
E Lifelong Learning	0
F1 Political Science*	3
F2 American Studies or American History	3
F3 Western Civilization:	
History 110A or B	3

Three units in addition to A4 and D2 must be upper division.

*To meet the ABET accreditation requirement for some depth in Arts, Humanities or Social Science, Engineering students must elect 2 courses from the same department among the requirements in categories A3, C1, C3, C4, D1, D3 and F1.

MASTER OF SCIENCE IN ENGINEERING

The program is designed to increase the depth of understanding of the student within one of the options (electrical engineering, mechanical engineering, civil engineering and engineering mechanics, systems engineering, or engineering science) without restricting the possibility of broadening the education outside of the immediate area.

Admission Procedure

1. Apply for admission to the university in graduate standing.

2. Declare the objective to be a Master of Science in Engineering with an option in Civil and Engineering Mechanics, Electrical, Systems, Mechanical, or Engineering Science.
3. Request two official transcripts to be sent to the Admissions and Records office from all institutions attended.

Prerequisites/Deficiencies

An applicant must meet the university requirements for admission in conditionally classified graduate standing: a baccalaureate from an engineering program accredited by the Accreditation Board for Engineering and Technology, and a grade-point average of at least 2.5 in the last 60 semester units attempted, with some options requiring a GPA greater than 2.5 in the last 60 semester units.

A student who does not have a B.S. in Engineering from an Accreditation Board for Engineering and Technology accredited program or who has a B.S. degree outside of engineering may need to make up deficiencies.

Any deficiencies must be made up and will require a minimum of six units of adviser-approved courses prior to beginning coursework for the master's degree. Deficiencies must be completed with at least a 3.0 average.

Classified Standing

To attain classified standing a student must:

1. Complete all courses specified to satisfy deficiencies.
2. Meet with an adviser to set up an approved study plan, prior to completing nine units of postgraduate course work.
3. Receive approval of the study plan by the department chair and the dean of graduate studies. Any subsequent changes to the study plan must have prior written approval of the adviser and the department chair.

Graduate Writing Requirement

Students who have degrees from outside the U.S.A. must pass the English Writing Proficiency (EWP) examination or take and pass English 360 in their first semester. Students with degrees from U.S.A. universities must show proof of meeting an upper division writing requirement, or take and pass the EWP or English 360 at CSUF.

Advancement to Candidacy

To be advanced to candidacy:

1. The student must request a graduation check.
2. The graduate program adviser must submit a recommendation to the dean of graduate studies.

Graduation

Final achievement of the Master of Science in Engineering requires that the classified student:

1. Has advanced to candidacy,
2. Has completed 30 units of approved courses with an overall GPA of not less than 3.0,
3. Has completed all the course requirements for the specific option,

4. Has satisfactorily passed a final comprehensive examination or oral defense of thesis or project,
5. Has received approval of the faculty of the option department and the dean of graduate studies.

General Requirements for All Options

Qualification for the Master of Science in Engineering requires the following:

1. Completion of a minimum of 30 units of adviser-approved upper-division or graduate-level work including:
 - A. EG-GN 403 and a minimum of three units of approved upper-division or graduate courses in mathematics-oriented engineering.
 - B. not less than one-half of the units required for the degree shall be in approved graduate (500-level) courses.
 - C. A minimum of 15 units of 400-level or 500-level courses in a specific option.
2. An overall GPA of 3.0.
3. Satisfactory completion of a final oral comprehensive examination.

The candidate for the Master of Science degree may, at his or her discretion and subject to the approval of the adviser, make an oral defense of a project or thesis (3-6 units) instead of taking the comprehensive oral examination. In order to make this substitution the student must either prepare a thesis, subject to the university's requirements, or submit a formal report of the project for review and approval by a committee of two or three faculty members. Guidelines for formal reports are available in the Engineering office. A typed draft of the project report or thesis must be submitted to the reviewing committee for approval at least eight weeks prior to the last day of classes, and a final version submitted for final approval at least four weeks prior to the last day of the semester in which the oral defense is scheduled.

A candidate for the Master of Science in Engineering may pursue one of five options currently offered by the Departments of Engineering: civil engineering and engineering mechanics, electrical engineering, mechanical engineering, systems engineering, engineering science.

In addition to those courses offered in the specific options, the following courses apply to any option, though they are not necessarily required:

EG-CE, EG-EE or EG-ME 597, Project (1-6); EG-CE, EG-EE or EG-ME 598, Thesis (1-6); EG-CE, EG-EE or EG-ME 599, Independent Graduate Research (1-3).

For further information, consult the departmental sections of this catalog.

Option in Engineering Science

The program in engineering science is to be selected by the student and his/her adviser and submitted for approval to a committee of an Engineering Department (supplemented, if appropriate, by members of the science and mathematics faculties). The courses selected are to meet a special and specific

Physics

art form, and relies upon the structural engineer to translate his concepts of beauty into structural reality. The architectural engineer has the training to interact with both architects and engineers or to work on his own in designing structures that combine both strength and beauty.

BACHELOR OF SCIENCE IN ENGINEERING OPTION IN CIVIL ENGINEERING

Mathematics and science foundation courses (36 units) See information listed under "Departments of Engineering" section.

Engineering core courses (24 units)

See information listed under "Departments of Engineering" section.

English Writing Proficiency Requirement

In addition to the English Writing Proficiency Examination which is to be taken as soon as 60 units are completed, these courses are required and must be passed with a grade of C or better. The laboratory reports are graded on English composition as well as content.

- EG-ME 306A Unified Laboratory (1)
- EG-CE 324L Soil Mechanics Laboratory (1)
- EG-CE 325L Structural Analysis Laboratory (1)
- EG-CE 377 Civil Engineering Materials Lab (1)
- EG-CE 428L Engineering Hydraulics Lab (1)
- EG-CE 495 Civil Engineering Professional Practice (1)

Required Courses for the Option in Civil Engineering (30 units)

- EG-EE 203L Electric Circuits Laboratory (1)
- EG-CE 214 Engineering Surveying (2)
- EG-CE 214L Engineering Surveying Laboratory (1)
- EG-CE 301 Mechanics of Materials (3)
- EG-CE 324 Soil Mechanics (3)
- EG-CE 324L Soil Mechanics Laboratory (1)
- EG-CE 325 Structural Analysis (3)
- EG-CE 325L Structural Analysis Laboratory (1)
- EG-CE 330 Computer Applications in Civil Engineering (3)
- EG-CE 377 Civil Engineering Materials Lab (1)
- EG-CE 408 Reinforced Concrete Design (3)
- EG-CE 418 Foundation Design (3)
- EG-CE 428 Engineering Hydraulics (3)
- EG-CE 428L Engineering Hydraulics Lab (1)
- EG-CE 495 Civil Engineering Professional Practice (1)

Technical Electives for Option in Civil Engineering (15 units)

Before enrolling in any elective course approval of the adviser must be obtained. At least nine units of design courses (identified with an *) are required.

- EG-CE 395 Pavement Design and Construction (3)
- EG-CE 411 Structural Dynamics (3)
- EG-CE 430 Structural Steel Design (3)*
- EG-CE 432 Computer-Aided-Design in Structural Engineering (3)*
- EG-CE 435 Design of Hydraulic Structures (3)*
- EG-CE 436 Engineering Hydrology (3)
- EG-CE 468 Engineering Construction (3)

- EG-CE 493 Structural Systems for Buildings (3)*
- EG-CE 494 Design of Civil Engineering Structures (4)*

ARCHITECTURAL ENGINEERING EMPHASIS

Mathematics and Science Courses (35 units)

Engineering Core Courses (24 units)

Required Civil Engineering Core (19 units)

- EG-EE 203L Electric Circuits Laboratory (1)
- EG-CE 301 Mechanics of Materials (3)
- EG-CE 324 Soil Mechanics (3)
- EG-CE 324L Soil Mechanics Laboratory (1)
- EG-CE 325 Structural Analysis (3)
- EG-CE 325L Structural Analysis Laboratory (1)
- EG-CE 408 Reinforced Concrete Design (3)
- EG-CE 418 Foundation Design (3)
- EG-CE 495 Civil Engineering Professional Practice (1)

Core Courses for the Emphasis in Architectural Engineering (24 units)

- Art 213A Beginning Environmental Design (3)
- Art 213B Interior Space Planning and Design (3)
- Art 313A Environmental Design: Unit Concepts (3)
- EG-CE 430 Structural Steel Design (3)
- EG-CE 432 Computer-Aided-Design in Structural Engineering (3)
- EG-CE 493 Structural Systems for Buildings (3)
- EG-CE 494 Design of Civil Egrg. Structures (4)
- Adviser-approved Elective (2)

Technical Electives for the Emphasis in Architectural Engineering (3 units)

- Art 303 Architectural & Interior Rendering (3)
- Art 313B Environmental Design: Systems Concepts (3)
- Art 420 History of Modern Architecture (3)
- Art 483B Special Studies in Environmental Design (3)
- EG-CE 468 Engineering Construction (3)
- EG-CE 497 Senior Project (3)
- Art 499 Independent Research (3)

MASTER OF SCIENCE IN ENGINEERING OPTION IN CIVIL ENGINEERING/ENGINEERING MECHANICS

Please refer to the "Departments of Engineering" section for general information.

After being admitted into the graduate program, each student must immediately contact the department chair to select an area of specialization (structural, engineering mechanics, hydraulics/hydrology, or geotechnical). At this time, a graduate adviser will be assigned by the chair. The student must make an appointment with the graduate adviser to set up a formal study plan before taking any courses in the graduate area. *Courses taken without prior approval of the graduate adviser or without a formal study plan approved by the dean of graduate studies may not be counted in the 30-units degree requirements.*

Civil Engineering Courses

201 Statics (3)

Prerequisites: Math 150B and Physics 225A. Vectorial treatment of statics of particles and rigid bodies. Freebody diagrams. Applications to problems of equilibrium (two and three dimensions) of structural and mechanical force systems. Centroids and moments of inertia.

214 Engineering Surveying (2)

Prerequisite: EG-ME 102; corequisite: EG-CE 214L. Measurement of horizontal distance, difference in elevation, and angles. Analyses and adjustments for systematic and random measurement errors. Traverse surveys and computations. Horizontal and vertical curves. Principles of stadia. Topographic surveys. Earthwork.

214L Engineering Surveying Laboratory (1)

Corequisite: EG-CE 214. Field practice of measurement of distance with a chain and stadia, horizontal and vertical angles with a theodolite, closed traverse, differential leveling, horizontal and vertical curve layout and locating stakes for highway construction. (3 hours laboratory)

301 Mechanics of Materials (3)

Prerequisites: Math 250A and EG-CE 201. Stress and deformation analysis for axial load, torsion, flexure, and combined forces. Analysis of simple statically indeterminate structures. Stability of columns. Strain energy & ultimate resistance. Interactive relationships between analysis & design.

302 Dynamics (3)

Prerequisites: Math 250A and EG-CE 201. Kinematics and kinetics of particles and rigid bodies, Newton's laws, work and energy, impulse and momentum. Solution of problems using vector approach.

324 Soil Mechanics (3)

Prerequisite: EG-CE 301. Soil properties and soil action as related to problems encountered in engineering structures; consolidation, shear strength, stability and lateral earth pressures.

32NL Soil Mechanics Laboratory (1)

Corequisite: EG-CE 324. Behavior and properties of soils. Application to foundation design, liquefaction and seepage.

325 Structural Analysis (3)

Prerequisite: EG-CE 301. Analysis of forces and displacements in statically determinate and indeterminate elastic structures by force and displacement methods. Approximate methods of analysis. Influence lines and applications. Matrix formulation of structural analysis and computer applications.

325L Structural Analysis Laboratory (1)

Corequisite: EG-CE 325. Principles of model analysis and similitude. Influence lines for reactive and internal forces; generalized displacements of statically indeterminate structures. Nonprismatic members. (3 hours laboratory)

330 Computer Applications in Civil Engineering (3)

Prerequisites: EG-GN 205, EG-CE 214, EG-CE 324 and EG-CE 325. Application of computer programming to the solution of problems in various branches of Civil Engineering.

377 Civil Engineering Materials Laboratory (1)

Corequisite: EG-CE 324. The behavior and properties of soil,

cement, concrete and bituminous materials. (3 hours lab)

395 Pavement Design and Construction (3)

Prerequisite: EG-CE 324. Corequisite: EG-CE 377. Design and construction of flexible and rigid pavements. Pavement distress, evaluation and strengthening. Maintenance and construction procedures.

408 Reinforced Concrete Design (3)

Prerequisites: EG-CE 325 and 377. Design for bending, shear, axial forces, combined loading. Design of beams, columns, slabs for ultimate strength and serviceability requirements; alternate design method. Prestressed concrete design. Design project of buildings or bridges to standards of professional practice.

411 Structural Dynamics (3)

Prerequisites: EG-CE 325 and EG-GN 308. Free and forced vibrations of discrete and continuous systems. Matrix formulation and normal coordinates analysis. Response of structures to impulse and earthquake loads.

418 Foundation Design (3)

Prerequisites: EG-CE 324 and 408. Design of footings and retaining walls. Mat and piled foundations for structures. Design project to standards of professional practice.

428 Engineering Hydraulics (3)

Prerequisite: EG-CE 302. Incompressible fluid flow in closed circuits and open channels. Hydrostatics, energy, and hydraulic grade lines. Momentum, friction formulas, pipelines, pumps, pipeline networks, uniform flow, critical flow, hydraulic jump, specific energy, nonuniform flow, and water surface profiles.

428L Engineering Hydraulics Laboratory (1)

Corequisite: EG-CE 428. Introduction to experimental hydraulics in open channel and pipe flows including measurements of discharge, depth, velocity, force and friction coefficients. Hydraulic model laws and report writing. (3 hours laboratory)

430 Structural Steel Design (3)

Prerequisite: EG-CE 325. Design for bending, torsion, shear, axial forces, combined loadings. Design of built-up girders, composite construction. Design of shear and moment connections. Design project of buildings or bridges to standards of professional practice.

432 Computer-Aided-Design in Structural Engineering (3)

Prerequisites: EG-GN 205 and EG-CE 325. Application of computer-aided design techniques with automated graphics to the design of civil engineering structures. Design project to the standards of professional practice (2 hours lecture, 3 hours laboratory).

435 Design of Hydraulic Structures (3)

Prerequisite: EG-CE 428. Applications of hydraulic principles to design of various structures including spillways, energy dissipators, outlet works, storm drains, culverts and water distribution systems. Use of computers in design process.

436 Engineering Hydrology (3)

Prerequisite: EG-CE 428. Hydrologic cycle with applications to hydrologic design of engineering structures. Rainfall, stream flow, ground water, surface runoff, hydrographs, flood routing, frequency distributions and design hydrographs.

468 Engineering Construction (3)

Prerequisites: EG-CE 408; Corequisite 418. Engineering construction planning equipment and methods. Construction management. Critical path method. Construction of buildings, bridges, highways, foundations and dams.

493 Structural Systems for Buildings (3)

Prerequisites: EG-CE 408 and 430. Corequisite: EG-CE 418. Building structural systems and their behavior under loads. Foundation systems. Roof, floor, wall systems. Construction and cost considerations. Design project to standards of professional practice. (2 hours lecture and 3 hours laboratory.)

494 Design of Civil Engineering Structures (4)

Prerequisites: EG-CE 408 and 430. Corequisite: EG-CE 418. Timber, reinforced masonry, reinforced concrete and steel design. Uniform Building Code. Design of buildings and bridges. Design projects to standards of professional practice. (2 hours lecture and 6 hours laboratory)

495 Civil Engineering Professional Practice (1)

Prerequisite: senior standing. Discussion of civil engineering as a profession and the civil engineer as a professional. Career opportunities in private sectors and government. Office and field practice. Professional growth and development. Project management. Business management and opportunities.

497 Senior Projects (1-3)

Prerequisites: senior standing in engineering and formal approval by adviser and department chair. Independent design projects. Formal report to be submitted after completion of project work.

499 Independent Study (1-3)

Prerequisites: senior standing in engineering and formal approval by adviser and department chair. Special topics in civil engineering. Formal report to be submitted after completion of independent study.

509 Theory of Plates and Shells (3)

Prerequisite: EG-ME 491. Theory of thin plates subjected to transverse loads. Analysis of plates of circular, rectangular and other shapes. Theory of thin shells. Shells of revolution. Shells of translation.

510 The Finite Element Method (3)

Prerequisites: EG-CE 517 and 533. Formulation of finite elements for analysis of plane stress and strain problems, axisymmetric bodies, plates and shells. Conforming and non-conforming shape functions. Computer applications to complex structural systems under static and dynamic loads.

517 Theory of Elasticity (3)

Prerequisite: EG-ME 491. Analysis of stress and strain. Equations of elasticity. Extension, torsion and flexure of beams. Two-dimensional elastostatic problems. Variational methods and energy theorems. Elementary three-dimensional elastostatic problems. Introduction to thermoelasticity and wave propagation.

529 Open Channel Hydraulics (3)

Prerequisite: EG-CE 428. Theory of uniform and varied flow in open channels. Applications to analysis and design of open channels and control structures.

532 Earthquake Engineering (3)

Prerequisites: EG-CE 411 and 533. Earthquake motions; response spectra; computational methods and computer applications for response of structural systems. Energy absorption capacity of materials and structural components. Soil structure interaction. Seismic design and evaluation of current building codes.

533 Matrix Methods of Structural Analysis (3)

Prerequisites: EG-CE 325 and EG-GN 403. Matrix formulation of structural analysis using the direct stiffness approach. Computer aided analysis of complex structural systems under static and dynamic loads. Stability analysis. Introduction to the finite element method.

537 Groundwater and Seepage (3)

Prerequisite: EG-CE 436. Equations governing flow of liquid in porous media. Seepage through dams and under structures, flow in confined and unconfined aquifers, steady and unsteady flow, well fields, flow nets, computer solutions, sea water intrusion, recharge, groundwater pollution.

544 Advanced Foundation Engineering (3)

Prerequisites: EG-CE 418. Beam on elastic foundations. Raft foundations. Retaining walls. Pile groups and pier foundations. Soil structure interaction. Foundations on expensive soils.

545 Coastal and Offshore Geotechnical Engineering (3)

Prerequisite: EG-CE 418. Foundation dewatering. Deep excavations. Geotechnical engineering of harbors, ports, marine, and offshore structures.

548 Soil Dynamics and Foundation Engineering (3)

Prerequisites: EG-CE 411, 418, and EG-ME 491. Wave propagation in soils. Blast effects. Analysis and design of dynamically loaded foundations. Earthquake design of dams and foundations of structures.

549 Theory of Elastic Stability (3)

Prerequisite: EG-CE 509. Critical buckling loads of columns, beam-columns, frames, plates, and shells. Lateral stability of beams. Torsional buckling of open wall sections.

563 Design of Prestressed Concrete Structures (3)

Prerequisite: EG-CE 408. Structural behavior and design of prestressed concrete elements and systems—simple beams, continuous beams, frames, and slabs under combined axial loads and flexure. Design project to standards of professional practice.

564 Design of Tall Concrete Buildings (3)

Prerequisites: EG-CE 408 and 533. Characteristics, design criteria, and safety provisions of tall concrete buildings. Selection and optimization of framing systems. Analysis and design of final configuration. Design project to standards of professional practice.

565 Design of Tall Steel Buildings (3)

Prerequisites: EG-CE 430 and 533. Design standards, technical and construction aspects, and seismic considerations of tall steel buildings. Elastic and plastic approaches to analysis and design. Computer aided analysis and automated design. Design project to the standards of professional practice.

597 Project (1-3)

Prerequisites: classified graduate status and formal approval of Civil Engineering Graduate Committee, graduate adviser and department chair.

598 Thesis (1-6)

Prerequisites: classified graduate status and formal approval of Civil Engineering Graduate Committee, graduate adviser, and department chair. (Max. of 3 units per semester.)

599 Independent Graduate Research (1-3)

Prerequisites: classified graduate status and formal approval of Civil Engineering Graduate Committee, graduate adviser, and department chair.

Department of Electrical Engineering

Department Chair: Mohinder Grewal
Associate Chair: John Clymer
Department Office: Engineering 100A

Faculty

Farrokh Abrishamkar, Larry Canter, Maqsood Ahmed Chaudhry, David Cheng, John Clymer, George Cohn, Douglas Dethlefsen, Shahin Ghazanshahi, Mohinder Grewal, Karim Hamidian, Hassan Hamidi-Hashemi, Eugene Hunt, Jack Kemmerly, Zia Khawza, Young Kwon, Allan McDonald, Somapala Nanayakkara, Kenneth Nichols, L. Benjamin Patrick, M. Javad Peyrovian, Chennareddy Reddy, Magdy Saeb, Charles Savant, Mostafa Shiva, Richard Shubert, Donald Snider, Fleur Tehrani, Jesus Tuazon, Min-Yen Wu

Advisers

Undergraduate program advisers: Eugene Hunt, Jesus Tuazon, David Cheng, Hassan Hamidi-Hashemi

Graduate program adviser: M. S. Grewal

All full-time faculty with the department are advisers; see Electrical Engineering bulletin board for names, office hours and room numbers.

INTRODUCTION

The electrical engineering program prepares the students to work in the area of design and analysis of digital and analog electronic circuits, design and analysis of computer architecture, microprocessors, communication networks and control systems. This program develops an ability to apply this design and analysis knowledge to the practice of electrical engineering in an effective and professional manner. This knowledge can be applied to work in aerospace, computers, electrical utility and oil companies.

BACHELOR OF SCIENCE IN ENGINEERING OPTION IN ELECTRICAL ENGINEERING

Mathematics and science foundation courses (36 units) see "Departments of Engineering"

Engineering core courses (24 units) see "Departments of Engineering"

Upper-Division Writing Requirement

In addition to the English Writing Proficiency Examination, all of the following courses are required to fulfill the upper-division English writing requirement:

- EG-ME 306A Unified Laboratory (1)
- EG-EE 310L Electronic Circuits Laboratory (2)
- EG-EE 313L Machine and Analog Computer Laboratory (1)
- EG-EE 384 Intro to Electronic Design (1)
- EG-EE 385 Electrical Engineering Design Projects Laboratory (2)

Written work for these courses must meet professional standards.

Required Courses for Option in Electrical Engineering (38 units)

Enrollment in these courses is limited to students who meet the prerequisites.

- EG-EE 203L Electric Circuits Lab (1)
- EG-EE 245 Computer Logic & Architecture (3)
- EG-EE 245L Computer Logic and Arch Lab (2)
- EG-EE 303 Electronics (3)
- EG-EE 303L Electronics Lab (1)
- EG-EE 309 Network Analysis (3)
- EG-EE 310 Electronic Circuits (3)
- EG-EE 310L Electronic Circuits Lab (2)
- EG-EE 311 Field Theory and Transmission Lines (3)
- EG-EE 313 Intro to Electromechanics (3)
- EG-EE 313L Machine and Analog Computer Lab (1)
- EG-EE 370 Sem in Electrical Engineering (1)
- EG-EE 384 Intro to Electronic Design (1)
- EG-EE 385 Electrical Engineer Design Projects Lab (2)
- EG-EE 409 Introduction to Linear Systems (3)
- EG-EE 423 Engineering Probability and Statistics (3)
- EG-EE 445 Digital Electronics (3)

Technical Electives for Option in Electrical Engineering (7 units)

Before enrolling in any elective course approval of the adviser must be obtained. At least one laboratory course must be included.

Electronic Circuits:

- EG-EE 404 Intro to Microprocessors and Microcomputers (3)
- EG-EE 404L Microprocessor Laboratory (1)
- EG-EE 442 Electronic Circuits (3)
- EG-EE 445L Pulse and Digital Circuits Lab (2)
- EG-EE 448 Digital Systems Design (3)
- EG-EE 455 Solid State Electronics (3)

Electronic Communications:

- EG-EE 420 Introduction to Digital Filtering (3)
- EG-EE 442 Electronic Circuits (3)
- EG-EE 443 Electronic Communication Systems (3)

- EG-EE 445L Pulse and Digital Circuits Lab (2)

- EG-EE 448 Digital Systems Design (3)

Control Systems:

- EG-EE 404 Intro to Microprocessors and Microcomputers (3)
- EG-EE 416 Feedback Control Systems (3)
- EG-EE 416L Feedback Control Sys Lab (2)
- EG-EE 420 Introduction to Digital Filtering (3)
- EG-EE 424 Computer Simulation of Continuous Systems (3)
- EG-EE 425 Intro to Systems Engineering (3)

Computer Engineering:

- EG-EE 307 Digital Computer Design & Org (3)
- EG-EE 307L Digital Computer Design Lab (3)
- EG-GN 403 Computer Meth in Numerical Analysis (3)
- EG-EE 404 Intro to Microprocessors and Microcomputers (3)
- EG-EE 404L Microprocessor Lab (1)
- EG-EE 420 Introduction to Digital Filtering (3)
- EG-EE 425 Intro to Systems Engineering (3)
- EG-EE 442 Electronic Circuits (3)
- EG-EE 445L Pulse and Digital Circuits Lab (2)
- EG-EE 448 Digital Systems Design (3)
- EG-EE 455 Solid State Electronics (3)

MASTER OF SCIENCE IN ENGINEERING OPTION IN ELECTRICAL ENGINEERING

Please refer to the "Departments of Engineering" section for general information.

Option in Electrical Engineering

In addition to university requirements, admission requires:

1. A 2.75 GPA in the last 60 semester units.
2. A minimum 3.0 in the last 15 units of electrical engineering courses attempted.
3. Satisfactory score on the GRE aptitude test.

A maximum of six units may be accepted for transfer from CSUF Extended Education or from an ABET accredited university. Each applicant file will be reviewed by the Electrical Engineering Department Graduate Committee; the applicant will be interviewed and a graduate adviser assigned based on the student's particular interests and objectives. Students with deficiencies will be conditionally accepted until such time as they have completed, with a GPA of 3.0 or better, makeup courses approved by the E.E. Graduate Committee. Students choosing a thesis, project or independent study as part of their study plan must file an Independent Study Application form with a one page abstract of the proposed study. This must be submitted to, and approved by, the supervising faculty member, adviser, and chair of the department prior to the semester in which the work is begun.

A student is required to select a minimum of 15 units within the option which may be 400-level and 500-level courses.

There are various areas of specialization: Computer Engineering, Control Systems, Communications Systems/Signal Processing, Electronics and Circuit Theory, Electromagnetic Field Theory and Application, Systems Engineering.

Option in Systems Engineering

Students seeking this option must meet the same requirements as the Option in Electrical Engineering. In addition students selecting the systems engineering option will be required to include these five courses in their study plans:

- EG-EE 580 Analysis of Random Signals (3)
- EG-EE 581 Theory of Linear Systems (3)
- EG-EE 582 Linear Estimation Theory (3)
- EG-EE 585 Optimization Techniques in Systems Engineering (3)
- EG-EE 587 Operational Analysis Techniques in Systems Engineering (3)

The remainder of the systems engineering study plan will include other engineering courses with an emphasis in a particular field such as information systems, control theory, computer systems, or civil or mechanical engineering applications. Students possessing a Bachelor of Science in Engineering may elect to include up to nine units from approved subjects offered by the School of Business Administration and Economics as a part of their study plan.

Electrical Engineering Courses

203 Electric Circuits (3)

Prerequisites: Physics 225B; Math 250A; EG-GN 205. Ohm's and Kirchhoff's laws; mesh and nodal analysis; basic network theorems; RL and RC transients; phasors and steady-state sinusoidal analysis; current, voltage and power relationships; polyphase circuits; magnetic coupling; and elementary transformers.

203L Electric Circuits Laboratory (1)

Prerequisite or corequisite: EG-EE 203. Simple resistive RL and RC circuits; electrical measurement techniques; verification of basic circuit laws. (3 hours laboratory)

241 Low-Level Language Systems (3)

(Same as Computer Science 241)

245 Computer Logic and Architecture (3)

Prerequisites: EG-GN 205 or Computer Science 131. Logical design and organization of the major components of computer, analysis and synthesis of combinatorial and sequential logics, analysis of the arithmetic, memory control and I/O units, concepts in computer control. (Same as Computer Science 245)

245L Computer Logic and Architecture Lab (2)

Corequisite: EG-EE 245. Digital logic circuits; decoders, counters, serial and parallel adders, control circuits (1 hour lecture, 3 hours laboratory). (Same as Computer Science 245L)

300 Electronic Instrumentation (3)

Prerequisite: EG-EE 203; corequisite: EG-EE 300L. Characteristics of semiconductor diodes and transistors; operational amplifiers, summers, integrators and analog filters; comparators and waveform generators; instrumentation amplifiers, digital logic and memory circuits, counters, multi-

brators, analog-to-digital converters; transducers; electronic measurement systems. (For Mechanical Engineering majors.)

300L Electronic Instrumentation Laboratory (1)

Corequisite: EG-EE 300. Measurements using analog electrical meters and oscilloscope; semiconductor devices and circuit application with emphasis on instrumentation methods using common transducers; operational amplifier applications: digital logic gates and flip-flops; analog-to-digital converters and displays. (3 hours laboratory) (For Mechanical Engineering majors.)

303 Electronics (3)

Prerequisites: Physics 225C, EG-EE 203 and 203L; corequisite: EG-EE 303L. Characteristics and elementary applications of semiconductor diodes, the field-effect transistors and bipolar-junction transistors.

303L Electronic Laboratory (1)

Corequisite: EG-EE 303. Semiconductor diodes, transistors, and elementary electronic circuits. (3 hours laboratory)

307 Digital Computer Organization and Design (3)

Prerequisite: EG-EE 245. Organization and design of major components of a digital computer including arithmetic, memory, input, output and control units. Integration of units into a system and simulation by a computer design language.

307L Digital Computer Design Laboratory (3) (Formerly 405L)

Prerequisites: EG-EE 303L, 245, 245L and 307. Design and implementation of a small digital computer; adders, arithmetic unit, control unit, memory control unit, memory unit and program unit. May be taken in lieu of EG-EE 310L and 313L. (1 hour lecture, 6 hours laboratory)

309 Network Analysis (3)

Prerequisites: EG-EE 203 and 203L; EG-GN 308. Performance of RLC circuits; complex frequency and the s-plane; frequency response and resonance; network topology; two-port network characterization; classical filter theory.

310 Electronic Circuits (3)

Prerequisites: EG-EE 303 and 309 and EG-GN 308. Continuation of 303, multistage amplifiers and feedback; frequency characteristics of amplifiers, frequency characteristics and stability of feedback amplifiers and operational amplifiers.

310L Electronic Circuits Lab (2) (Formerly 375B)

Corequisite: EG-EE 310. Single or multistage and feedback amplifiers; linear and digital integrated circuits, ADC and DAC design project. (3 hours laboratory, 1 hour lecture.)

311 Field Theory and Transmission Lines (3)

Prerequisites: Physics 225B and Math 250B. Electrostatics and magnetostatics; boundary value problems; magnetic materials and the magnetic circuit; magnetic induction; Maxwell's equations and the formulation of circuit concepts; transmission lines.

313 Introduction to Electromechanics (3)

Prerequisites: EG-EE 309 and 311. Electromagnetic fields and circuits; transformers, saturation effects. Simple electro-mechanical systems. Circuit models, terminal characteristics and applications of DC and AC machines.

313L Machine & Analog Computer Lab (1) (Formerly 375A)

Corequisite: EG-EE 313. Filter and dynamic systems simula-

- tion using analog computer; transformers and AC and DC machines (3 hours laboratory).
- 370 Seminar in Electrical Engineering (1)**
Prerequisite: senior standing in engineering. The engineering profession, professional ethics, and related topics.
- 384 Introduction to Electronic Design (1)**
Corequisites: EG-EE 310L, 313L. The design of electronic circuits and subsystems. Each student will initiate a specific project which will be completed under the follow-on design projects course.
- 385 Electrical Engineering Design Projects Laboratory (2)**
Prerequisite: EG-EE 384. The application of fundamental engineering principles to typical design problems in the field of electrical engineering. (6 hours laboratory)
- 404 Introduction to Microprocessors and Microcomputers (3)**
Prerequisites: EG-EE 245 and 245L. Microprocessors; LSI technology for μ -processors, MSI circuits, μ -processor family chips, system organization, cpu, system controller, clock, timing diagrams, ROM, RAM, UART, and Input/Output system. (Same as Computer Science 404)
- 404L Microprocessor Laboratory (1)**
Prerequisites: EG-EE 245 and 245L. Corequisite: EG-EE 404. Hands-on experience on microprocessor systems; 6502 family chips, Z-80 μ -processor system monitor, cross-assembler, assembly language programming, I/O interfacing. (3 hours laboratory)
- 409 Introduction to Linear Systems (3)**
Prerequisites: EG-EE 203, EG-CE 302 and EG-GN 308. Development of time and frequency domain models for physical systems. The linearization process and representation with block diagrams and signal flow graphs; discrete-time systems and digital signals including use of Z-transforms; stability theory of continuous and discrete time systems.
- 412 Computer Architecture (3) (Formerly 506A)**
Prerequisites: EG-EE 245 and 245L. Modern architectures from micro and mini-computer to large scale systems, their CPU structures, memory hierarchies and I/O processors such as microprogramming cache and virtual memories, DMA, interrupts and priority. (Same as Computer Science 412)
- 416 Feedback Control Systems (3)**
Prerequisite: EG-EE 409. Feedback control system characteristics; analysis and design of continuous-time systems using root-locus and Bode plots; stability and compensation of discrete-time and continuous-time systems.
- 416L Feedback Control Systems Lab (2)**
Corequisite: EG-EE 416; prerequisites: EG-EE 409 or EG-ME 376A and 411. Time and frequency responses, effects of state variable feedback, stability analysis by Nyquist plot, design by root locus techniques and computer simulation are performed in the laboratory by the aid of an on-line computer. (6 hours laboratory)
- 420 Introduction to Digital Filtering (3)**
Prerequisite: EG-EE 409. Sampling and quantization of continuous signals; discrete systems; recursive and nonrecursive filters; discrete and fast Fourier transforms.
- 423 Engineering Probability and Statistics (3)**
Prerequisite: Math 250A. Discrete and continuous random variables, probability distribution and density functions, stochastic processes, correlation functions and power spectral densities.
- 424 Computer Simulation of Continuous Systems (3)**
Prerequisites: EG-GN 205 and 308. Use of the digital computer for simulation of physical systems modeled by ordinary differential equations; problem formulation, in-depth analysis of two integration methods, and the use of a general purpose system simulation program such as CSSL.
- 425 Introduction to Systems Engineering (3)**
Prerequisite: EG-EE 307 or Computer Science 351. Introduction to systems analysis based on a two-dimensional graphical language to represent system behavior; system analysis procedure including sensitivity analysis; introduction to optimization and modelling; computer hardware, software trade offs.
- 442 Electronic Circuits (3)**
Prerequisite: EG-EE 310. Power amplifiers and tuned amplifiers; RF amplifiers; modulation and detection circuits; oscillators; and operational amplifier applications.
- 443 Electronic Communication Systems (3)**
Prerequisites: EG-EE 310 and 423. Principles of amplitude, angular and pulse modulation, representative communication systems, the effects of noise on system performance.
- 445 Digital Electronics (3)**
Prerequisites: EG-EE 303 and EG-GN 308. RC circuit, attenuator, compensation and scope probe. Logic circuits; DTL, TTL, STTL, LSTTL and ECL fanout. Noise immunity. Switching speed. Power consumption. Input output characteristics. MOS logic circuits; PMOS, NMOS and CMOS gates. Flip-flops, shift registers and memory circuits.
- 445L Pulse and Digital Circuits Laboratory (2)**
Prerequisite: EG-EE 445 (may be taken concurrently). Logic circuits, switching circuits, gates, timing circuits and special waveform generating circuits. (1 hour lecture, 3 hours laboratory)
- 448 Digital Systems Design (3)**
Prerequisites: EG-EE 303, 303L, 245, 245L. Practical aspect of digital system design. MSI and LSI chips; ROM, PROM and RAM memories; noise, loading and termination problems; logic design documentation, design of computer interface, servo controller or data logger system.
- 455 Solid State Electronics (3)**
Prerequisites: EG-EE 303 and 311. Quantum mechanical principles, atomic structure, crystal structure, crystal defect and diffusion, lattice vibration and phonons, energy band theory, charge transport phenomena, free electron theory of metal, intrinsic and extrinsic semiconductors, p-n junction theory, transistor theory.
- 497 Senior Project (1-3)**
Prerequisite: consent of adviser and instructor. Directed independent design project.
- 499 Independent Study (1-3)**
Prerequisite: approval of study plan by adviser. Specialized topics in engineering selected in consultation with and completed under the supervision of the instructor. May be repeated for credit.
- 503 Information Theory and Coding (3)**
Prerequisite: EG-EE 423. Information measures, probabilis-

tic studies of the transmission and encoding of information, Shannon's fundamental theorems, coding for noisy channels.

504A Linear Network Synthesis (3)

Prerequisite: EG-EE 310. Synthesis of passive element driving-point and transfer-functions with emphasis on RC networks. Basic operational amplifier RC circuits and their performance limitations, introduction to second-order RC active filters. Parameter sensitivity analysis.

504B Linear Active Networks (3)

Prerequisite: EG-EE 504A. Cascade realizations of RC active filters utilizing low-gain and infinite-gain amplifiers; state-variable filter realizations of high-Q filters; gyrators and generalized impedance converters. RC filters using active feedforward and feedback circuits.

505 Non-Linear Control

Prerequisite: EG-EE 416. Design of compensators for continuous-time and discrete-time systems; introduction to nonlinear control systems; phase-plane analysis; applications of Lyapunov stability theory to design.

507 Detection Theory (3)

Prerequisite: EG-EE 580. Formulation of decision rules for the detection of signals in a noisy environment, optimum receivers. Estimation of parameters of detected signals. Estimation theory.

513 Optimal Control Systems (3)

Prerequisite: EG-EE 581. Formulation of optimal control problems; the calculus of variations; the maximum principle; studies of minimum-time and minimum-energy problems; dynamic programming.

514 Introduction to Optical Electronics (3)

Prerequisite: EG-EE 311. Review of Maxwell's equations. Propagation, optical resonators, interaction of radiation and atomic systems, laser oscillations, laser systems, noise in optical systems, detection of optical radiation, optical communication systems, holography.

515 Advanced Control Theory (3)

Prerequisite: EG-EE 416. Pole-zero placement for closed-loop systems. State reconstruction with observer systems. Bode and root locus analysis of state variable feedback systems. Optimal design with a quadratic performance index. Multiple-input multiple-output system eigen-structure.

518A Digital Signal Processing I (3)

Prerequisite: EG-EE 420. Discrete-time signals, discrete-time random signals, spectral analysis, generation and shaping of pseudorandom signals, IIR and FIR realization, power spectrum estimation.

518B Digital Signal Processing II (3)

Prerequisite: EG-EE 420. Flow graph and matrix representation of digital filters, finite word length effect in digital filters, two-dimensional signal processing, applications to speech processing, homomorphic signal processing.

519 Multiprocessing and Computer Networks (3)

Prerequisite: EG-EE 412. Advanced topics in computer architecture design to increase computing throughput and efficiency through multiprocessing, distributed processing, array and pipeline processors, and computer networks.

523A Solid State Devices and Integrated Circuits (3)

Prerequisite: EG-EE 455. Solid state fabrication technologies: diffusion, epitaxy, metallization, photo-lithography.

Solid state device design principles; diodes, transistors, FETs, linear integrated circuits, digital integrated circuits.

523B Large Scale Integrated Circuits (3)

Prerequisites: EG-EE 245 and 523A. Design and analysis of large scale integrated circuits. p- and n-channel MOS circuits; complementary MOS circuits; static and dynamic circuits; integrated injection logic circuits; shift register design; read-only memory and random access memory design; computer-aided and other logic circuit design.

527 Fault Diagnosis and Finite Automata (3)

Prerequisite: EG-EE 307. Advanced logic design, threshold and quadded logic, asynchronous circuits, pulse and fundamental modes, sequential machines, fault detection and diagnosis of digital systems, and finite state recognizers.

528 Computer Memories (3)

Prerequisites: EG-EE 307 and 445. Physics, design architectures and applications of computer memories including semiconductors such as CCD, bi-polar, MOS, CMOS, NMOS and ECL; and magnetic devices such as core, bubble, thin films and plated wire.

531 Phase-Locked and Frequency Feedback Systems (3)

Prerequisite: EG-EE 580 or consent of instructor. Theory of noise and linear systems, FM feedback principles. Theory and design of phase-locked loops and their applications in communication and control.

557 Microprogramming and Emulation (3)

Prerequisite: EG-EE 307. An introduction to microprogramming concepts and applications to the control unit of a computer, digital control systems, interpretations, translation and emulations. (Same as Computer Science 557)

558A Microprocessors and System Applications I (3)

Prerequisites: EG-EE 404 and 404L. Microprocessors and microcomputers, their related software systems, system design with microprocessors, applications in peripheral controllers, communication devices and multiprocessing systems.

558B Microprocessors and Systems Applications II (3)

Prerequisite/corequisite: EG-EE 558A. Architecture and application of 16-bit microprocessors, such as the Z8002, the 8086 and the 68000 including interfacing, data paths, busses, instruction sets, DMA, and I/O.

559 Introduction to Robotics (3)

Prerequisite: EG-EE 404. The science of robotics from an electrical engineering hardware standpoint, including machine vision, mobility, sensing, control, arm manipulation, voice synthesis, and motions.

559L Robotics Laboratory (1)

Prerequisites: EG-EE 558B, Computer Science 471. Corequisite: EG-EE 559. The design and construction of a programmable manipulator and development of the necessary circuits to make "intelligent". (3 hours laboratory)

572 Topics in Control Theory (3)

Prerequisites: EG-EE 581 and consent of instructor. Offered once each year with course content varied. Topics: system identification, numerical methods for optimal control computations, nonlinear system theory, and advanced digital control. May be repeated for credit with consent of instructor.

580 Analysis of Random Signals (3)

Prerequisites: EG-EE 409 and 423. Random processes pertinent to communications, controls and other physical appli-

cations, Markov sequences and processes, the orthogonality principle.

581 Theory of Linear Systems (3)

Prerequisites: EG-GN 403 and EG-EE 416. State space analysis, linear spaces, stability of systems; numerical methods of linear systems analysis and design.

582 Linear Estimation Theory (3)

Prerequisites: EG-EE 580 and 581. Mathematical models of continuous-time and discrete-time stochastic processes; the Kalman filter, smoothing and suboptimal filtering computational studies.

585 Optimization Techniques in Systems Engineering (3)

Prerequisite: EG-GN 403. Calculus of variations, optimization of functions of several variables, Lagrange multipliers, gradient techniques, linear programming, and the simplex method, nonlinear and dynamic programming.

587 Operational Analysis Techniques in Systems Engineering (3)

Prerequisites: EG-EE 423 and 585. Operational research models; applications of probability theory to reliability, quality control, waiting line theory, Markov chains; Monte Carlo methods.

597 Project (1-3)

Prerequisite: consent of adviser. Classified graduate students only.

598 Thesis (1-6)

Prerequisite: consent of adviser. Classified graduate students only.

599 Independent Graduate Research (1-3)

Prerequisite: Consent of adviser. May be repeated for credit.

EG-ME 376A Mechanical Engineering Lab (2)

EG-ME 376B Mechanical Engineering Lab (2)

EG-ME 407 Heat Transfer (3)

EG-ME 421 Mechanical Design (3)

EG-ME 421L Mechanical Design Laboratory (1)

EG-ME 481 Mechanical Vibrations (3)

Technical Electives for Option in Mechanical Engineering (3-1 units)

Students enrolling in any elective course approval of the advisor must be obtained.

Power and Energy

EG-ME 318 Intermediate Thermodynamics (3)

EG-ME 346L Microcomputers in Mechanical Engineering

EG-ME 424 Energy Conversion and Power (3)

EG-ME 447 Piping Selection and Piping Network Design (3)

EG-ME 449 Internal Combustion Engines (3)

EG-ME 450 Power Plant Engineering (3)

EG-ME 451 Thermal Environmental Conditioning and Control (3)

EG-ME 452 Fluid Machinery (3)

EG-ME 472 Solar Energy and Engineering Applications (3)

EG-ME 475 Introduction to Nuclear Engineering (3)

Design and Materials

EG-ME 320 Metallurgy (3)

EG-ME 328L Intro to Computer Aided Design (2)

EG-ME 331 Mechanical Behavior of Materials (3)

EG-ME 346L Microcomputers in Mechanical Engineering (2)

EG-ME 411 Mechanical Control Systems (3)

EG-ME 459 Plastics and Other Non-Metals (3)

EG-ME 460 Failure of Engineering Materials (3)

EG-ME 461 Fabrication Methods (3)

EG-ME 462 Composite Materials (3)

EG-ME 463 Robotics and Automated

Department of Mechanical Engineering

Department Chair: Timothy W. Lancey

Department Office: Engineering 100H

Faculty

Munir El-Saden, Krishna Kammula, Jesa Kreiner, Sundaram Krishnamurthy, Timothy Lancey, Peter Othmer, Alexander Pomerantsev, James Rizza, Hasan Sehitoglu, Edward Sowell, Floyd Thomas, Andrew Wortman.

Advisers:

Undergraduate program adviser: Jesa Kreiner

Graduate program adviser: Timothy Lancey

INTRODUCTION

Mechanical engineers are employed in a wide range of professional activities. At one end of the spectrum they are concerned with engineering science and research. As research engineers they encounter a wide variety of scientific and technical problems; therefore graduate study is recommended for this type of engineer. At the other end of the spectrum the mechanical engineer is concerned with hardware development, including the design of mechanical components and systems, fabrication, manufacturing, reliability and testing. The work performed by mechanical engineers varies from general engineering to highly specialized functions, e.g., design, product development, construction, maintenance, sales, research and management. Mechanical engineers need a firm understanding of science, mathematics and engineering to carry out these complex tasks which are so important to a modern technological society.

The curriculum in mechanical engineering at the undergraduate level is intended to provide a broad base of science, mathematics and engineering science, coupled with a sufficient amount of concentration in mechanical engineering courses to initiate a successful career in the mechanical engineering profession. This is achieved by providing the correct balance among the many aspects of engineering education.

BACHELOR OF SCIENCE IN ENGINEERING OPTION IN MECHANICAL ENGINEERING

Mathematics and science foundation courses
(36 units) See "Departments of Engineering"

Engineering core courses
(24 units) See "Departments of Engineering"

Upper-Division Writing Requirement.

In addition to the Examination in Writing Proficiency (EWP) the following courses are required by all mechanical engineering majors: EG-ME 306A, 306B, 376A and 376B. Written work for these courses must meet professional standards.

Required Courses for Option in Mechanical Engineering (34 units)

- EG-ME 202 Material Science (3)
- EG-CE 301 Mechanics of Materials (3)
- EG-EE 300 Electronic Instrumentation (3)
- EG-EE 300L Electronics Instrumentation Lab (1)
- EG-ME 306B Unified Laboratory (2)
- EG-ME 333 Fluid Mechanics & Aerodynamics (3)
- EG-ME 335 Introduction to Mechanical Design (3)
- EG-ME 335L Mechanical Analysis Laboratory (1)
- EG-ME 370 Seminar in Engineering (1)
- EG-ME 376A Mechanical Engineering Lab (2)
- EG-ME 376B Mechanical Engineering Lab (2)
- EG-ME 407 Heat Transfer (3)
- EG-ME 421 Mechanical Design (3)
- EG-ME 421L Mechanical Design Laboratory (1)
- EG-ME 431 Mechanical Vibrations (3)

Technical Electives for Option in Mechanical Engineering (11 units)

Before enrolling in any elective course approval of the adviser must be obtained.

Power and Energy:

- EG-ME 316 Intermediate Thermodynamics (3)
- EG-ME 340L Microcomputers in Mechanical Engineering
- EG-ME 434 Energy Conversion and Power (3)
- EG-ME 447 Piping Selection and Piping Network Design (3)
- EG-ME 449 Internal Combustion Engines (3)
- EG-ME 450 Power Plant Engineering (3)
- EG-ME 451 Thermal Environmental Conditioning and Control (3)
- EG-ME 452 Fluid Machinery (3)
- EG-ME 472 Solar Energy and Engineering Applications (3)
- EG-ME 473 Introduction to Nuclear Engineering (3)

Design and Materials:

- EG-ME 320 Metallurgy (3)
- EG-ME 322L Intro to Computer Aided Design (2)
- EG-ME 331 Mechanical Behavior of Materials (3)
- EG-ME 340L Microcomputers in Mechanical Engineering (2)
- EG-ME 411 Mechanical Control Systems (3)
- EG-ME 459 Plastics and Other Non-Metallics (3)
- EG-ME 460 Failure of Engineering Materials (3)
- EG-ME 461 Fabrication Methods (3)
- EG-ME 462 Composite Materials (3)
- EG-ME 463 Robotics and Automated

Manufacturing (3)

- EG-ME 475 Acoustics and Noise Control (3)
- EG-ME 480 Human Factors in Design (3)

Thermal and Fluids Engineering:

- EG-ME 316 Intermediate Thermodynamics (3)
- EG-ME 340L Microcomputers in Mechanical Engineering (2)
- EG-ME 415 Gas Dynamics (3)
- EG-ME 422 Applied Tribology (3)
- EG-ME 447 Piping Selection and Piping Network Design (3)
- EG-ME 451 Thermal Environmental Conditioning and Control (3)
- EG-ME 452 Fluid Machinery (3)

MASTER OF SCIENCE IN ENGINEERING OPTION IN MECHANICAL ENGINEERING

Please refer to the "Departments of Engineering" section for general information. The Master of Science program in Mechanical Engineering is intended to provide advanced knowledge in the field of Mechanical Engineering. It is subdivided into three specializations: Power and Energy, Design and Materials, Thermal and Fluids Engineering. A student may choose to specialize in one or more of these subjects depending on individual professional needs and goals.

It is important the student meet with his/her academic adviser prior to the completion of nine units of work in order to complete a plan of study. Failure to do so may result in additional unit requirements for the completion of the degree program.

Mechanical Engineering Courses

102 Graphical Communications (3)

Graphics as a fundamental means of communication in design. Development of spatial visualization. Freehand sketching, shading, orthographic projection, oblique-isometric and perspective pictorials. Dimensioning, descriptive geometry, design procedure and design projects. (1 hour lecture, 6 hours laboratory)

202 Material Science (3)

Prerequisites: Chem 120A and Physics 225A. Scientific and engineering principles important in selection of materials in design. Stress, strain, electrical and magnetic properties. Crystalline structure and imperfections, environmental effects and other topics from material science. Metallic, organic and ceramic substances.

304 Thermodynamics (3)

Prerequisites: Chem 120A, Math 150B and Physics 225A; corequisite: EG-GN 205 or consent of instructor. Energy and its transformation; heat and work; conservation of mass and energy, system properties irreversibility and availability. Ideal gases, heat engines and refrigeration (both ideal and actual).

306A Unified Laboratory (1)

Prerequisite: EG-ME 102, Physics 225A; corequisite: EG-GN 205. Observations and measurements in the laboratory as

an introduction to the experimental method. Static and dynamic measurements are made on simple engineering systems (beams, columns, pendulums, gyroscopes) using mechanical and electrical transducers. Report writing. (3 hours laboratory)

306B Unified Laboratory (2)

Prerequisite: EG-ME 333 and 306A. Corequisite: EG-ME 407. Continuation of EG-ME 306A. Flow measurement techniques using orifice plates, venturimeters. Pitot probes and nozzles. Temperature and pressure measurement. Experimental studies of fluid friction and heat exchanger performance. Role of the digital calculator and computer in data reduction and analysis. Formats for technical report writing. (1 hour lecture, 3 hours laboratory)

316 Intermediate Thermodynamics (3)

Prerequisites: EG-GN 205 and EG-ME 304. Continuation of EG-ME 304, additional coverage of power and refrigeration cycles. Maxwell's relations, mixtures of real and ideal fluids, chemical reactions (emphasis on combustion), phase and chemical equilibrium.

320 Metallurgy (3)

Prerequisite: EG-ME 202. Structure and properties of metals and alloys, influences of mechanical and thermal treatments, plastic deformation, work hardening and recrystallization, grain growth, alloy diagrams, solution hardening, diffusion hardening, precipitation hardening, the iron-carbon system, composite materials, brittle, creep and fatigue failures.

322L Introduction to Computer Aided Design (2)

Prerequisites: EG-GN 205, EG-ME 102 and Math 250B. Commercial computer aided design systems; software to create, store and modify engineering drawings. Matrix transformation techniques. Programming 2-D graphics display of simple geometrics. Economic and productivity issues.

331 Mechanical Behavior of Materials (3)

Prerequisite: EG-ME 202. Plastic deformation and hardening mechanisms, creep phenomena. Fatigue. Behavior at cryogenic temperatures. Fabrication processes and their effects on properties. Testing of materials.

333 Fluid Mechanics and Aerodynamics (3)

Prerequisites: EG-GN 205 and EG-CE 201. Principles of fluid mechanics and their applications: fluid properties; statics; one-dimensional incompressible flow; concepts of multi-dimensional flows including conservation principles; similarity and dimensional analysis; elements of compressible flow; open channel flow.

335 Introduction to Mechanical Design (3)

Prerequisites: EG-GN 205 and EG-CE 302; corequisite: EG-ME 335L. Kinematics and dynamics of mechanisms, design and analysis of linkage gears, cams, using analytical and graphical techniques, balancing.

335L Mechanical Analysis Laboratory (1)

Prerequisite: EG-ME 102; Corequisite: EG-ME 335. Analytical and graphical techniques will be used in solving engineering type problems in mechanical design. (3 hours laboratory)

340L Microcomputers in Mechanical Engineering (2)

Prerequisites: EG-GN 205, EG-EE 203 and upper division standing. Introduction to microcomputer systems—hardware and software components. Operating systems. Selected projects involving the use of design, analysis and

data acquisition software for microcomputers. (1 hour lecture, 3 hours laboratory)

370 Seminar in Engineering (1)

Prerequisite: senior standing in engineering. The engineering profession, professional ethics, and related topics. May be repeated once for credit with the approval of the faculty chair.

376A Mechanical Engineering Laboratory (2)

Prerequisites: EG-CE 302, EG-EE 300, EG-ME 306A and EG-GN 308. Dynamic systems, vibration, acoustics and other mechanical subjects; analog and computer simulation of dynamic systems; and automatic data acquisition. (6 hours laboratory)

376B Mechanical Engineering Laboratory (2)

Prerequisite: EG-ME 304 and 306B. Mass transfer, heat transfer, and thermodynamic phenomena and their interaction with mechanical systems. (6 hours laboratory)

407 Heat Transfer (3)

Prerequisites: EG-ME 333 and Math 250B. Principles of heat transfer and their applications: introduction to conductive, convective and radiative heat transfer; one-dimensional heat conduction; concepts of multi-dimensional conduction; convective heat transfer in conduits and external surfaces; radiation heat transfer; heat exchangers.

411 Mechanical Control Systems (3)

Prerequisites: EG-GN 205 and 308 and EG-CE 302. Mechanical control system design and analysis. Pneumatic, hydraulic, electromechanical actuators and devices. Stability criteria, root locus plots, transfer functions, introduction to feedback control and microprocessor applications.

415 Gas Dynamics (3)

Prerequisites: EG-ME 304 and 333. Thermodynamics of compressible fluid flow, normal and oblique shocks, flow through converging-diverging passages, flow in ducts with heating or cooling, interaction of shocks and expansion waves. Linearized 2-D flows, supersonic wind tunnel testing.

421 Mechanical Design (3)

Prerequisites: EG-CE 301 and EG-ME 335; corequisite: EG-ME 421L. The application of the principles learned in mechanics of rigid and deformable bodies to the proportioning of machine elements to engineering problems.

421L Mechanical Design Laboratory (1)

Corequisite: EG-ME 421. Analysis, formulation and solution of engineering type problems encountered in mechanical design. (3 hours laboratory)

422 Applied Tribology (3)

Prerequisite: EG-ME 421 or consent of instructor. Types of bearings. Rotor bearing dynamics. Bearing materials. Lubricant and bearing material selection. Fatigue and wear phenomena.

431 Mechanical Vibrations (3)

Prerequisites: EG-GN 205 and 308 and EG-CE 302. Natural frequencies of single and multiple degrees of freedom systems. Response to forcing functions. Vibrations of machine elements. Vibration isolation. Balancing of rotating machines.

434 Energy Conversion and Power (3)

Prerequisites: EG-EE 300 and EG-ME 304. The direct conversion of heat to electrical energy, thermoelectric, therm-

ionic and magnetohydrodynamic devices, solar and fuel cells and exotic techniques.

447 Piping Selection and Piping Network Design (3)

Prerequisites: knowledge of fluid mechanics and strength of materials; consent of instructor. Pressure losses in piping networks; selection of piping based upon fluid, temperature, pressure and economic considerations; piping connections, fittings and components; stress analysis; review of national piping codes.

449 Internal Combustion Engines (3)

Prerequisites: EG-ME 304 and 407. Thermodynamics of cycles for internal combustion engines, including fuels and combustion. Performance characteristics of various types of IC engines. Including the following engines: Otto, Wankel, Diesel and gas turbine. Exhaust analysis and pollution control.

450 Power Plant Engineering (3)

Prerequisites: EG-ME 304 and 407. Engineering principles and design methods applicable to modern electrical power generation facilities. Economics, heat transfer, steam generation, fuels and combustion, and equipment. Steam, gas, turbine, diesel, nuclear and hydroelectric plants are considered.

451 Thermal Environmental Conditioning and Control (3)

Prerequisites: EG-ME 304 and 407. The fundamentals of controlling the thermal environment within enclosed spaces. Theory and analysis of fundamental thermodynamics relating to thermal environmental engineering. Laboratory demonstrations of actual systems.

452 Fluid Machinery (3)

Prerequisites: EG-ME 304 and 333. The thermodynamics and fluid mechanics of flow through pumps, fans, turbines and compressors. Component selection and system performance evaluations.

459 Plastics and Other Non-Metallics (3)

Prerequisite: EG-ME 202. Simplified chemistry of plastics. Applications. Manufacturing processes. Methods for preventing deterioration of nonmetallic materials. Composites. Ceramics. Refractories. Wood. Destructive and nondestructive testing of nonmetallic materials.

460 Failure of Engineering Materials (3)

Prerequisite: EG-ME 202. Imperfections in solids; fracture initiation and crack propagation; dislocations; yield point phenomenon; fatigue; creep; ultrasonic effects; radiation damage; stress corrosion; hydrogen embrittlement; composite materials.

461 Fabrication Methods (3)

Prerequisite: EG-ME 202. Manufacturing processes. Metal joining processes. Casting, forging, powder metallurgy, machining and machining tools, finishing, coating, plating, non-metallic materials inspection and gaging, tolerances.

462 Composite Materials (3)

Prerequisites: EG-ME 202 and EG-CE 301. Application, mechanical properties and fabrication studies of fiber reinforced composite materials, stress analysis of laminated anisotropic composite structures. Studies of special problems unique to composites.

463 Robotics and Automated Manufacturing (3)

Prerequisites: EG-ME 335 and 376A. Kinematic, dynamic, control and programming fundamentals associated with in-

dustrial robots and programmable manipulators. Application of robotics in manufacturing, programming methods and sensing, artificial intelligence linkage, computer-aided design/computer-aided manufacturing and integration of robots into flexible manufacturing systems.

472 Solar Energy and Engineering Applications (3)

Prerequisites: EG-ME 304 and 407. Solar collectors, space heating and cooling, power production and energy storage; review of basic economic principles; quantification of technical and economic performance of engineering solar systems; mathematical analysis of system performance.

473 Introduction to Nuclear Engineering (3)

Prerequisite: senior or graduate standing in engineering. A review of atomic physics and nuclear fission; elementary reactor theory and reactor design.

475 Acoustics and Noise Control (3)

Prerequisite: Physics 225C. Basic phenomena on the propagation, absorption and generation of acoustic waves, specification and measurement of noise, effects of noise on speech and behavior, legal aspects of industrial and building noise, principles and application of noise control.

480 Human Factors Engineering (3)

Prerequisite: junior standing in engineering. Design of products and systems based on human engineering principles. Human capabilities and limitation of senses. Responses to sensory stimuli. Physiological, psychological and work factors are evaluated for design of equipment, work methods, environments and standards.

491 Analytical Methods in Engineering (3)

Prerequisite: EG-GN 308 or consent of instructor. Differential equations with constant and variable coefficients; orthogonal functions; conformal mapping; potential theory; engineering applications.

497 Senior Project (1-3)

Prerequisite: consent of adviser and instructor. Directed independent design project.

499 Independent Study (1-3)

Prerequisite: approval of study plan by adviser. Specialized topics in engineering selected in consultation with and completed under the supervision of the instructor. May be repeated for credit.

500 Nuclear Systems Engineering (3)

Prerequisite: EG-ME 473 or consent of instructor. Nuclear systems design, analysis and operation, including: nuclear fuel cycle, nuclear reactor systems, safety and safeguards, the regulatory process fusion.

508 Advanced Inviscid Fluid Flow (3)

Prerequisites: EG-GN 205 and 308 and EG-ME 333. Study of two- and three-dimensional potential flow theory. Sources, sinks, vortices, Rankine bodies, free jets, channel flow, air foils. Complex potential and various transformation techniques are used.

511 Advanced Mechanical Vibrations (3)

Prerequisites: EG-ME 431 or equivalent. Vibrations in rotating and reciprocating machines; noise and vibration in fluid machinery; continuous systems; random vibrations; transient and nonlinear vibration, computer applications.

512 Advanced Mechanical Design (3)

Prerequisite: EG-ME 421. Advanced modern mechanisms. Analysis and synthesis of mechanisms. Computer aided de-

sign of mechanical, thermal and fluid systems. Optimization in design. Product producibility.

516 Advanced Radiation Heat Transfer (3)

Prerequisite: EG-ME 407. Radiation heat transfer including the study of the geometric factor, black and real systems, and energy transfer in absorbing, scattering and emitting media, and radiation combined with other modes of energy transfer.

520 Advanced Viscous Fluid Flow (3)

Prerequisites: EG-ME 333 or equivalent. The fundamental equations of viscous fluid flow. Viscous drag estimation. Drag reduction methods.

524 Advanced Thermodynamics (3)

Prerequisite: EG-ME 316. Equilibrium and stability criteria, chemical thermodynamics, multiple reaction systems, ionization, equilibrium composition. Ideal gases, ideal solids, thermodynamic cycles.

526 Advanced Convective Heat Transfer (3)

Prerequisite: EG-ME 407. Convective heat transfer; heat transfer in external and internal flow fields of both laminar and turbulent fluid flow.

530 Advanced Strength of Materials (3)

Prerequisite: EG-ME 421 or consent of instructor. Energy methods. Castigliano's Theorem: curved beams, beams on elastic support, thickwalled cylinders, shrink fits, localized stress, column instability, failure theories, three-dimensional Mohr's circle.

536 Advanced Conduction Heat Transfer (3)

Prerequisite: EG-ME 407. Conduction heat transfer; Bessel and Legendre functions, Fourier series solutions, heat sources and sinks, multidimensional problems, transient systems and numerical methods (finite difference and finite element methods).

540 Computer Applications In Engineering Design (3)

Prerequisite: Egr 403. Digital and analog computers in engineering design. Design methodology, model development, model use for parametric analysis, design optimization, performance prediction; use of existing generalized programs and simulation languages is emphasized.

541 Finite Element Method for Mechanical Engineers (3)

Prerequisites: EG-ME 407 and EG-GN 403. Matrix formulation of basic equations in steady state and transient heat conduction. Elements and interpolation functions. Non-linear problem formulation. Finite element computer programs in heat transfer, fluid dynamics and design.

576 Advanced Dynamics & Control of Mechanical Systems (3)

Prerequisite: EG-ME 411. Advanced study of the dynamics and control of mechanical systems, including: equations of motion, stability, solution techniques and case studies.

592 Advanced Engineering Analysis (3)

Prerequisites: EG-GN 403 and 491 or equivalent. Partial differential equations in engineering, numerical techniques, integral equations, engineering applications.

597 Project (1-6)

Prerequisite: consent of adviser.

598 Thesis (1-6)

Prerequisite: consent of adviser.

599 Independent Graduate Research (1-3)

Prerequisite: classified graduate status. Open to graduate students only by consent of Mechanical Engineering Graduate Committee. May be repeated for credit only upon approval of this committee.

Master of Science in Engineering

The program is designed to increase the depth of understanding of the student within one of the options (electrical engineering, mechanical engineering, civil engineering and engineering mechanics, systems engineering, or engineering science) without restricting the possibility of broadening the education outside of the immediate area.

Admission Procedure

1. Apply for admission to the university in graduate standing.
2. Declare the objective to be a Master of Science in Engineering with an option in Civil and Engineering Mechanics, Electrical, Systems, Mechanical, or Engineering Science.
3. Request two official transcripts to be sent from all institutions attended to the Admissions and Records office.

Prerequisites/Deficiencies

An applicant must meet the university requirements for admission in conditionally classified graduate standing: a baccalaureate from an engineering program accredited by the Accreditation Board for Engineering and Technology, and a grade-point average of at least 2.5 in the last 60 semester units attempted, with some options requiring a GPA greater than 2.5 in the last 60 semester units.

A student who does not have a B.S. in Engineering from an Accreditation Board for Engineering and Technology accredited program or who has a B.S. degree outside of engineering may need to make up deficiencies.

Any deficiencies must be made up and will require a minimum of six units of adviser-approved courses prior to beginning coursework for the master's degree. Deficiencies must be completed with at least a 3.0 average.

Classified Standing

To attain classified standing a student must:

1. Complete all courses specified to satisfy deficiencies.
2. Meet with an adviser to set up an approved study plan, prior to completing nine units of postgraduate course work.
3. Receive approval of the study plan by the department chair and the dean of graduate studies. Any subsequent changes to the study plan must have prior written approval of the adviser and the department chair.

Graduate Writing Requirement

Students who have degrees from outside the U.S.A. must pass the English Writing Proficiency (EWP) examination or take and pass English 360 in their first semester. Students with degrees from U.S.A. universities must show proof of meeting an upper division writing requirement, or take and pass the EWP or English 360 at CSUF.

Advancement to Candidacy

To be advanced to candidacy:

1. The student must request a graduation check.
2. The graduate program adviser must submit a recommendation to the dean of graduate studies.

Graduation

Final achievement of the Master of Science in Engineering requires that the classified student:

1. Has been admitted to candidacy,
2. Has completed 30 units of approved courses with an overall GPA of not less than 3.0,
3. Has completed all the course requirements for the specific option,
4. Has satisfactorily passed a final comprehensive examination or oral defense of thesis or project,
5. Has received approval of the faculty of the option department and the dean of graduate studies.

General Requirements for All Options

Qualification for the Master of Science in Engineering requires the following:

1. Completion of a minimum of 30 units of adviser-approved upper-division or graduate-level work including:
 - A. Engineering 403 and a minimum of three units of approved upper-division or graduate courses in mathematics-oriented engineering.
 - B. not less than one-half of the units required for the degree shall be in approved graduate (500-level) courses.
 - C. A minimum of 15 units of 400-level or 500-level courses in a specific option.
2. An overall GPA of 3.0.
3. Satisfactory completion of a final oral comprehensive examination.

At the discretion of the Master of Science degree candidate, subject to the approval of the adviser, the student may make an oral defense of a project or thesis (3-6 units) instead of taking the comprehensive oral examination. In order to make this substitution the student must either prepare a thesis, subject to the university's requirements, or submit a formal report of the project for review and approval by a committee of two or three faculty members. Guidelines for formal reports are available in the Engineering office. A typed draft of the project report or thesis must be submitted to the reviewing committee for approval at least eight weeks prior to the last day of classes, and a final version submitted for final approval at least four weeks prior to the last day of the semester in which the oral defense is scheduled.

A candidate for the Master of Science in Engineering may pursue one of five options currently offered by the Departments of Engineering: civil engineering and engineering mechanics, electrical engineering, mechanical engineering, systems engineering, engineering science.

In addition to those courses offered in the specific options, the following courses apply to any option, though they are not necessarily required:

EG-CE, EG-EE or EG-ME 597, Project (1-6);
EG-CE, EG-EE or EG-ME 598, Thesis (1-6);
EG-CE, EG-EE or EG-ME 599, Independent
Graduate Research (1-3).

For further information, consult the department.

Option in Civil Engineering/Engineering Mechanics

After being admitted into the graduate program, each student must immediately contact the department chair to select an area of specialization (structural, engineering mechanics, hydraulics/hydrology, or geotechnical). At this time, a graduate adviser will be assigned by the chair. The student must make an appointment with the graduate adviser to set up a formal study plan before taking any courses in the graduate area. *Courses taken without prior approval of the graduate adviser or without a formal study plan approved by the dean of graduate studies may not be counted in the 30-units degree requirements.*

Option in Electrical Engineering

In addition to university requirements, admission requires:

1. A 2.75 GPA in the last 60 semester units.
2. A minimum 3.0 in the last 15 units of electrical engineering courses attempted.
3. Satisfactory scores on the GRE aptitude test.

A maximum of six units may be accepted for transfer from CSUF Extended Education or from an ABET accredited university. Each applicant file will be reviewed by the Electrical Engineering Department Graduate Committee; the applicant will be interviewed and a graduate adviser assigned based on the student's particular interests and objectives. Students with deficiencies will be conditionally accepted until such time as they have completed, with a GPA of 3.0 or better, makeup courses approved by the E.E. Graduate Committee. Students choosing a thesis, project or independent study as part of their study plan must file an Independent Study Application form with a one page abstract of the proposed study. This must be submitted to, and approved by, the supervising faculty member, adviser, and chair of the department prior to the semester in which the work is begun.

A student is required to select a minimum of 15 units within the option which may be 400-level and 500-level courses.

There are various areas of specialization: Computer Engineering, Control Systems, Communications Systems/Signal Processing, Electronics and Circuit Theory, Electromagnetic Field Theory and Application, Systems Engineering.

Option in Systems Engineering

Students seeking this option must meet the same requirements as the Option in Electrical Engineering. In addition students selecting the systems engineering option will be required to include these five courses in their study plans:

- EG-EE 580 Analysis of Random Signals (3)
- EG-EE 581 Theory of Linear Systems (3)
- EG-EE 582 Linear Estimation Theory (3)
- EG-EE 585 Optimization Techniques in Systems Engineering (3)
- EG-EE 587 Operational Analysis Techniques in Systems Engineering (3)

The remainder of the systems engineering study plan will include other engineering courses with an emphasis in a particular field such as information systems, control theory, computer systems.

Option in Mechanical Engineering

The Master of Science program in Mechanical Engi-

neering is intended to provide advanced knowledge in the field of Mechanical Engineering. It is subdivided into three specializations: Power and Energy, Design and Materials, Thermal and Fluids Engineering. A student may choose to specialize in one or more of these subjects depending on individual professional needs and goals.

It is important that the student meet with his/her academic adviser prior to the completion of nine units of work in order to complete a plan of study. Failure to do so may result in additional unit requirements for the completion of the degree program.

Option in Engineering Science

The program in engineering science is to be selected by the student and his/her adviser and submitted for approval to a committee of the Engineering Department (supplemented, if appropriate, by members of the science and mathematics faculties). The courses selected are to meet a special and specific engineering science objective of the student, such as engineering physics.

Child Development

- Bachelor of Science
- Minor

Counseling

- Master of Science

Education

- Master of Science
- Concentrations in:
 - Bilingual/Bicultural Education (Spanish/English)
 - Elementary Curriculum and Instruction
 - Reading
 - Educational Administration
 - Special Education
 - Teaching English to Speakers of Other Languages (For further information refer to the Department of Foreign Languages and Literatures section of this catalog.)
 - Teaching Credential (See Teaching Credential Programs Section of this Catalog)

Health Promotion

- Minor

Human Services

- Bachelor of Science
- Minor

Military Science

- Minor

Nursing

- Bachelor of Science

Physical Education

- Bachelor of Science
- Bachelor of Science
- Minor

School of Human Development and Community Service

Acting Dean: Eula Stovall

Associate Dean: Michael Parker

Programs Offered

Child Development

Bachelor of Science
Minor

Counseling

Master of Science

Education

Master of Science
Concentrations in:
Bilingual/Bicultural Education (Spanish-English)
Elementary Curriculum and Instruction
Reading
Educational Administration
Special Education
Teaching English to Speakers of Other Languages (*For further information refer to the Department of Foreign Languages and Literatures section of this catalog.*)
Teaching Credentials (*See Teaching Credential Programs Section of this Catalog*)

Health Promotion

Minor

Human Services

Bachelor of Science
Minor

Military Science

Minor

Nursing

Bachelor of Science

Physical Education

Master of Science
Bachelor of Science
Minor

The School of Human Development and Community Service provides students with a sound academic education and technical preparation for professional fields whose common purpose is to serve individual and community needs. The school offers programs which combine theoretical understandings with practical skills, both scholarly and professional perspectives. Programs in the school lead to traditional academic degrees at the baccalaureate and graduate levels as well as to a variety of specific certificates, credentials and licenses.

The School of Human Development and Community Service is organized into the following instructional units: the Child Development Program; the Depart-

ment of Counseling; the Department of Educational Administration; the Department of Elementary and Bilingual Education; the Department of Health Education, Physical Education and Recreation; the Human Services Program; the Military Science Program; the Department of Nursing; the Department of Reading; the Department of Secondary Education and the Department of Special Education.

In addition to these instructional units, the school also includes the University Recreation Program (Ronald Andris, Director, and Michael Uraine, Associate Director) and the Field Services and Professional Development Center (Ashley Bishop, Director).



Child Development Program

Coordinator: Judith Ramirez

Program Office: Education Classroom 105A

Programs Offered

Bachelor of Science in Child Development Minor in Child Development

Faculty

Robert McClaren, Judith Ramirez

Other full-time faculty from various departments on campus teach courses required for the Child Development Program. For information regarding participating faculty for each semester, contact the Program office.

Advisers

Judith Ramirez, Academic and Career Advisement

Nancy Zuniga, Multiple Subjects Waiver Advisement

INTRODUCTION

The Bachelor of Science in Child Development is a joint degree program in which faculty from the departments of Afro-Ethnic Studies, Anthropology, Biological Science, Chicano Studies, Elementary and Bilingual Education, English, Nursing, Psychology, Secondary Education, and Sociology combine their expertise to foster student exploration of the nature and nurture of human development from an interdisciplinary perspective.

The Child Development degree is designed for students wishing to study the developmental and aging processes in humans throughout the life cycle, concentrating on the periods between birth and young adulthood. Since the program emphasizes interrelationships between the development of the person, the family, and the community, Child Development majors study and observe infants, children, adolescents, and adults in a variety of formal and informal settings.

Child Development is an appropriate major for students planning to pursue advanced degrees in the behavioral sciences and/or enter professions dedicated to service to children and families; for example, education, child guidance, social welfare, or family counseling.

BACHELOR OF SCIENCE IN CHILD DEVELOPMENT

The major in child development requires the successful completion of a minimum of 51 upper-division units which satisfy the pattern indicated below. Each course counted for the major must be completed with a grade of C or higher.

Many upper-division courses require prerequisites. It is the student's responsibility to become familiar with all appropriate campus regulations and degree requirements.

Core Courses (30 units required):

Three of the following (9 units required):

Child Development 312 Human Growth and Development (3)

or Psychology 361 Develop Psych (3)

Child Development 385 Infancy and Early Childhood (3)

Child Development 386 Adolescence (3)

Child Development 390 Middle Childhood (3)

All of the following (18 units required):

Biological Sciences 305 Human Heredity and Development (3)

Child Development 496 Senior Seminar in Child Development (3)

English 301 Advanced College Writing (Meets course work portion of upper-division writing requirement) (3)

Psychology 463 Experimental Child Psych (3)
(Prerequisite: Psych 202)

Sociology 453 Child in American Society (3)

Special Education 371 Exceptional Individual (3)

At least one of the following (3 units required):

Child Development 391 Practicum in Child Development (3)

or Education-Elem. 315 Introduction to Elementary Classroom Teaching

or Education-Sec. 310 The Teaching Experience: Participation (3)

or Psychology 495 Internship in Psych (3)

or Sociology 400 Sociological Internship (3)

NOTE: A minimum of 120 hours of field work with children and families is required for the major. No more than 6 units of practicum/internship may be applied to the child development major. Each three units of practicum/internship must average at least four hours per week in the field setting. All practicum/internships must have prior approval of the child development coordinator or designee.

Studies in Diversity (6 units required):

Afro-Ethnic Studies 309 Black Family (3)

Afro-Ethnic Studies 311 Intracultural Socialization Patterns (3)

Anthropology 302 Culture and Personality: Psychological Anthropology (3)

Chicano Studies 431 Chicano Child (3)

Criminal Justice 300 Introduction to Criminal Justice (3)

Sociology 413 Juvenile Delinquency (3)

Sociology 451 Sociology of the Family (3)
Special Education 421 Working with Parents of Children with Exceptional Needs (3)

Studies in Special Topics (9 units required):

Afro-Ethnic Studies 422 Psychology of the Afro American (3)

American Studies 301 The American Character (3)

Anthropology 450 Culture and Education (3)

Art 380 Art and Child Development (3)

Biological Sci 323 Biol of Sexually Transmitted Diseases (1)

Biological Sci 360 Biol of Human Sexuality (1)

Chicano Studies 305 The Chicano Family (3)

Criminal Studies 425 Juvenile Justice Administration (3)

Dance 471 Creative Dance for Children (3)

Education-Elementary 437 Early Childhood Education (3)

Education-Secondary 406 Educational Sociology (3)

English 433 Children's Literature (3)

Mathematics 303A Fundamental Concepts of Elementary Mathematics (3)

Music 333 Music and Child Development (3)

Music 433 Music in Early Childhood (3)

Nursing 307 Health Promotion: Parent-Child Nursing (3)

Physical Education 364 Motor Development (3)

Physical Education 372 Movement and the Child (3)

Psychology 311 Educational Psychology (3)

Psychology 331 Psychology of Personality (3)

Psychology 341 Abnormal Psychology (3)

Psychology 464 Advanced Developmental Psychology (3)

Psychology 470 Behavior Modification (3)

Science Education 310 Physical Science Concepts (3)

Sociology 341 Social Interaction (3)

Speech Communication 403 Speech/Language Development (3)

Theatre 402A Dramatic Activities for Children (3)

Theatre 411 Oral Interpretation of Children's Literature (3)

Electives (6 units required):

Two additional courses selected from the above choices or other upper division courses approved by a Child Development adviser.

NOTE: Electives must be taken for a letter grade unless offered only on credit/no-credit basis.

MULTIPLE SUBJECT CREDENTIAL WAIVER

A carefully selected sequence of courses in the child development major and general education has been approved by the State of California as a waiver for the General Knowledge Core Battery Section of the National Teacher's Exam (NTE).

Either completion of the waiver or passing scores on the General Knowledge Core Battery of the National Teachers Exam (NTE) is a partial requirement for the Multiple Subjects (Elementary) Teaching Credential. Contact the Child Development Program office for further information.

THE MINOR IN CHILD DEVELOPMENT

For a minor in Child Development, 21 units are required:

Three of the following (9 units required):

- Child Development 312 Human Growth and Development (3)
- Child Development 385 Infancy and Early Childhood (3)
- Child Development 386 Adolescence (3)
- Child Development 390 Middle Childhood (3)

One of the following (3 units required):

- Child Development 391 Practicum in Child Development (3)
Or Educ. Elem. 315 Introduction to Elementary Classroom Teaching (3)
Or Educ. Sec. 310 The Teaching Experience: Participation (3)
Or Sociology 400 Sociological Internship (3)
Or Psychology 495 Internship in Psychology (3)

Three of the following (9 units required):

- Afro-Ethnic Studies 309 Black Family (3)
- Art 380 Art and Child Development (3)
- Biological Science 313 Human Genetics (3)
- Chicano Studies 305 Chicano Family (3)
- Chicano Studies 431 Chicano Child (3)
- Criminal Justice 425 Juvenile Justice Administration (3)
- Dance 471 Creative Dance for Children (3)
- Educ-Elem. 437 Early Childhood Education (3)
- English 433 Children's Literature (3)
- Music 333 Music and Child Development (3)
- Music 433 Music in Early Childhood (3)
- Physical Education 364 Motor Development (3)
- Physical Education 372 Movement and the Child (3)

- Psychology 463 Experimental Child Psych (3)
- Psychology 464 Advanced Developmental Psychology (3)
- Psychology 470 Behavior Modification (3)
- Sociology 413 Juvenile Delinquency (3)
- Sociology 451 Sociology of the Family (3)
- Sociology 453 Child in American Society (3)
- Special Education 371 Exceptional Individual (3)
- Special Education 421 Working with Parents of Children with Exceptional Needs (3)

Department Regulations

1. All required and elective courses must be taken in a particular sequence. Check with the advisor for prerequisites.
2. Admission to the credential and/or master's program is separate from admission to the generic master's program. Admission is contingent upon performance in the credential program or its equivalent.
3. Progression in and completion of the credential program is not solely based on the completion of academic coursework.

- Speech Communication 403 Speech/Language Development (3)
- Theatre 402A Dramatic Activities for Children (3)

Child Development Courses

312 Human Growth and Development (3)

Prerequisite: Psychology 101. Human growth and development, childhood, adolescence and middle and old age. Mental, social, emotional and physical development.

385 Infancy and Early Childhood (3)

Prerequisite: Psychology 101 or consent of instructor. The physical growth and social and personality development of the human through the sixth year of life.

386 Adolescence (3)

Prerequisite: Psychology 101 or consent of instructor. The physical, social and cultural development of human adolescents and youth. Contemporary factors producing change.

390 Middle Childhood (3)

Prerequisite: Psychology 101 or consent of instructor. Physical growth, personality development and social participation during middle childhood. Patterns of cognitive growth and emotional adjustment.

391 Practicum Seminar (2)

Prerequisite: Child Development 312 or Psychology 361. Corequisite: Child Development 391S. Agencies, institutions; and organizations serving children and families; roles of early childhood professionals. May be repeated for a total of six units of credit.

391S Practicum in Child Development (1)

Prerequisite: Child Development 312 or Psychology 361. Corequisite: Child Development 391. Supervised field experience with children or adolescents. Minimum of four hours per week required for each unit of credit. Total of 120 hours required for major. May be repeated for a total of three units of credit. Credit/No Credit grade option only.

496 Senior Seminar in Child Development (3)

Prerequisites: Child Development 312, Child Development 385, Child Development 386 or Child Development 390. Topics in child development selected by the faculty and students participating in course. Theory, methodology and findings.

Department of Counseling

Department Chair: Patricia Hannigan
Department Office: Education Classroom 105

Programs Offered

Master of Science in Counseling

Pupil Personnel Services Credential
School Psychologist Credential
Marriage, Family and Child Counseling Licensure Preparation
Educational Psychologist Licensure Preparation

Faculty

Patricia Hannigan, Lisa Hoshmand, Michael Parker,
John Davis, Cheryl Lanktree

Advisers

Counseling, Master of Science: Patricia Hannigan

Pupil Personnel Services Credential: John Davis

School Psychology Credential: John Davis

Marriage, Family and Child Counseling Licensure:
Cheryl Lanktree

INTRODUCTION

The Counseling Department offers professional preparation for those persons who wish to work in the helping professions in public and private educational institutions, mental health and community service agencies, correctional settings and health care agencies. The Masters of Science degree program is a generic academic program of 30 units consisting of a set of specific competencies in treatment, diagnosis, pathology, research, program development and consultation. It forms the basis of academic preparation for the Pupil Personnel Services Credential (School Counseling Credential), School Psychology Credential, Marriage, Family, and Child Counseling License and Educational Psychologist License. The generic graduate degree in counseling also has applicability for persons who want to enhance their skills in fields such as teaching, nursing, administration, business and management, coaching, speech pathology, medicine, law, law enforcement and correction. The generic graduate program may be used in preparation for study toward a doctorate in a variety of helping profession areas.

The Counseling Department offers courses at the upper-division, undergraduate level for those persons seeking a career working with people.

CREDENTIAL INFORMATION

The Counseling Department has credential programs in Pupil Personnel Services (school counseling) and School Psychology approved by the Commission for Teacher Credentialing (CTC).

LICENSURE INFORMATION

The program offers academic preparation for California Marriage, Family and Child licensure. Students seeking this licensure should contact the Board of Behavioral Science Examiners (BBSE) for the requirements and consult their department adviser concerning the curricular content areas that meet BBSE requirements.

Students desiring licensure as an Educational Psychologist should apply to the State Board of Behavioral Science Examiners after completion of three years as a full time school psychologist.

MASTER OF SCIENCE IN COUNSELING

Admission Requirements

1. Baccalaureate from an accredited institution;
2. Grade-point average of at least 3.0 in last 60 semester units;
3. Grade-point average of at least 3.25 in a minimum of 30 units of behavioral science courses (e.g., psychology, sociology, anthropology, communications, and philosophy);
4. Three letters of recommendation;
5. Paid and/or volunteer job experience.
6. Graduate Record Exam scores must be submitted with the application form.

Applicants apply through the Admissions Office, although prospective applicants are encouraged to meet with a faculty adviser to get information prior to applying.

The deadline for submission of applications is April 1 for Fall admission and November 1 for Spring admission. Applications received after these dates may be considered based on space availability.

The Counseling Academic Review Board screens and selects applicants for admission each semester.

Classification

Students are initially admitted at a Conditionally Classified status. Prior to the completion of the first nine units with grades of B or better, a student is required to apply for Classified standing. To achieve this a student must meet with the assigned faculty adviser and develop and submit a graduate study plan. Students must also satisfactorily meet the Graduate Writing Requirements. See adviser for details.

Department Regulations

1. All required and elective courses must be taken in a particular sequence. Check each course description for prerequisites.
2. Admission to the credential and licensure preparation programs is separate from admission for the generic master's degree program and is contingent upon performance in the generic program, or its equivalent.
3. Progression in and completion of the generic degree program, credential, and/or licensure programs is not solely based on successful completion of academic coursework, i.e. grades of "B"

or better. Retention in the programs is also contingent upon student effectiveness as indicated by competency ratings of "4" or better and demonstration of professional and ethical behavior in the classroom and in applied counseling settings. Retention is periodically reviewed by the departmental Professional Review Board.

Study Plan

Students should consult the current Counseling Students Handbook available in the Titan Bookstore or on reserve in the Library for information pertinent to the Counseling Programs.

Core Courses:

	Units
Treatment: (Counseling 511, 512, 513, 514) . . .	12
Research: (Counseling 521)	3
Pathology: (Counseling 531, 532)	6
Electives: Select 2 approved electives.	6
Culmination: (Counseling 595, or 597, or 598) . . .	3
Total.	30

No grade below a B is permitted for any of the 30 units on the study plan. Students not seeking to practice counseling may elect to substitute Counseling 597 Project or 598 Thesis in place of 595 Competency Certification with adviser consent. Later certification requires completion of Counseling 595.

PUPIL PERSONNEL SERVICES CREDENTIAL

(Employment as a counselor by a school district requires a credential issued by the State Commission for Teacher Credentialing [CTC].) The Counseling Department is authorized by law (Ryan Act) to offer this credential. Prerequisites for admission to the *counseling credential objective* are:

1. 3.2 GPA in all coursework.
2. Completion of all generic program assessments with average ratings of 4+ or higher.
3. Completion of application including personal statement regarding goals and objectives in acquiring the PPS credential.
4. Personal interview with Academic Review Board.

In addition to the M.S. in Counseling degree core courses, the student must take Counseling 522, 526, 533, 494 and two semesters of fieldwork and practicum experience (Counseling 581 and 582). Prior to admission to fieldwork, all candidates shall have been determined to be free of a criminal record which would preclude the credential. Students are required to be reassessed on any competencies not assessed within the last twelve months prior to recommendation of the PPS credential. Students are advised to consult with a faculty adviser for current information and requirements since state requirements may be revised.

SCHOOL PSYCHOLOGY CREDENTIAL

Students may apply for the School Psychology Program (*School Psychology credential objective*) during the last semester of the Pupil Personnel Services Program. Presently the Department requires a PPS credential earned at this institution. The student

may apply for the School Psychologist Specialist credential objective upon assessment of the M.S. degree competencies. In addition to acquiring the specialist competencies, the student must complete an internship consisting of full-time placement for a school year. Any student transferring from another institution must pass most of the generic (M.S.) competencies at a "4+" level prior to admission to School Psychology course work. All generic competencies must be at the "4+" level before the end of their first semester and formal admission. All students within the CSUF Counseling generic and PPS program must demonstrate competence at "4+" level as well.

Employment as a school psychologist requires that the student have the Pupil Personnel Credential and an additional 26 units of course work including Counseling 515, 516, 523, 524, 525, 535, 536 and Internship Counseling 583. Students are required to be reassessed on any competencies not assessed within the last 12 months prior to recommendation for the School Psychologist Credential.

Note: Since requirements for the above credentials and licenses may involve qualifications beyond academic preparation, such as further internship experience, official state tests, proof of lack of a criminal record, etc., the student is advised to consult a faculty adviser to assure compliance. Moreover, the requirements are subject to change without notice.

Counseling Courses

252 Career Exploration and Life Planning (3)

Exploration of personal career potentials, employment trends, decision-making, goal-setting and job search methods.

316 Group Process and Membership (1-3)

Prerequisite: consent of instructor. A didactic and experiential overview of stages of group development, impact of members on group identity, group member and leader issues. Survey of various counseling groups. May be repeated for credit. Credit/no credit only. (Same as Human Services 316)

317 Special Group Experiences (1-3)

Prerequisite: consent of instructor. Survey of theory and practice of special group approaches. A didactic and experiential view of group models in the helping professions. May be repeated for credit. Credit/no credit only. (Same as Human Services 317)

380 Theories and Techniques of Counseling (3)

(Same as Human Services 380)

452 Exploration in Self Concepts: Temperament and Character (3)

Temperament and its relationship to career, marriage and parenting.

480 Case Analysis and Intervention Techniques (3)

(Same as Human Services 480)

490 Standard Counseling Models (3)

Prerequisites: upper division standing and consent of instructor. Analysis of the standard counseling models includ-

ing their procedures, outcomes, rationale and ostensible utility in treating abnormal or deviant behavior.

494 Counseling & Culture: Theory, Practice & Research (3)

Prerequisites: Couns 452 or Couns 490 or equivalent. Designed to familiarize counseling professionals with the theory of the research in counseling persons from diverse cultural backgrounds and to sensitize them to counseling issues and practice with these groups.

511 Counseling Casework (3)

Prerequisites: admission to M.S. in Counseling program and consent of instructor. Introduction to intervention methods.

512 Counseling Procedures (3)

Prerequisites: Counseling 511 and consent of instructor. More advanced intervention methods. May be repeated for credit.

513 Counseling Procedures Assessment Seminar (3)

Prerequisites: Counseling 511, 512, 521, 531 (or concurrent) and consent of instructor. Standard treatment models.

514 Group Leadership (3)

Prerequisites: Counseling 513 (or concurrent) and consent of instructor. Group treatment usable with unrelated groups in educational, enforcement, correctional and health care agencies. May be repeated for credit.

515 Paradox Counseling Procedures (3)

Prerequisites: Counseling 513, 514 and instructor consent. The double bind methods of Milton Erickson and the paradoxical uses of standard treatment methods.

516 Conjoint Counseling Procedures (3)

Prerequisites: Counseling 514 and consent of instructor. Applications of the Interdiction Model of Milton Erickson and Jay Haley and others to related groups. May be repeated for credit.

517 Counseling Procedures: Chemical Dependency (3)

Prerequisites: Coun 511, 512, 513, 514 or equivalent and consent of instructor. On exit students will demonstrate the ability to apply models of etiology, diagnosis and treatment to persons dependent upon alcohol, drug and/or prescription medications and their families.

521 Research in Counseling (3)

Prerequisite: admission to M.S. in Counseling program or consent of instructor. Methods of controlled inquiry in counseling.

522 Detection Procedure: Formal Experiments (3)

Prerequisites: Counseling 521 and consent of instructor. The phenomenology of test, inventory and interview methods and their reporting. Must be taken concurrently or prior to fieldwork or internship. May be repeated for credit.

523 Detection Procedure: Ability Tests (4)

Prerequisites: admission to the School Psychology program and consent of instructor. Instruction and coaching in the assessment of intelligence and achievement tests used to devise appropriate individual education plans. Emphasis in the Binet, Weschler Scales, WRAT.

524 Detection Procedure: Projective Tests (4)

Prerequisites: admission to the School Psychology program and consent of the instructor. Instruction and coaching in the assessment of projective sensory-motor and perceptual motor behavior used to devise appropriate individual education plans. Emphasis on drawing and sentence completion tests

to determine disordered processes and/or dysfunctional self image.

525 Personality Study: Advanced Issues (3)

Prerequisites: Counseling 523, 524, and consent of instructor. Application of metric and projective detection theory to the understanding of mentation and personality and their application in school settings.

526 Professional Issues in Counseling (3)

Prerequisite: Counseling 595. A survey of current legal, ethical, and pragmatic issues faced by counseling practitioners and administrators of counseling services.

531 Pathology: Comparative Etiology (3)

Prerequisite: admission to M.S. in Counseling program or consent of instructor. The spectrum of abnormal behaviors and experiences of clients of varying age, sex, culture and ethnicity. May be repeated for credit.

532 Child and Family Dysfunction (3)

Prerequisites: Counseling 521, 531 and consent of instructor. The management of guidance programs in child maldevelopment, family and school dysfunctions, including child welfare laws. May be repeated for credit.

533 Career and Occupational Guidance (3)

Prerequisites: Counseling 532 and consent of instructor. Consultation with individuals and organizations to prevent mismatch of individuals and their opportunities, and mismatch of organization means and goals. Special focus upon institutional iatrogenics. Career guidance background recommended. May be repeated for credit.

534 Sexual Dysfunction (3)

Prerequisites: Counseling 532 and consent of instructor. Phenomenology, nosology, demography, etiology, prognostics, treatment strategies and bibliography of sexual disturbance. May be repeated for credit.

535 Pathology: Disorders of Thought and Language (3)

Prerequisites: Counseling 532 and consent of instructor. Phenomenology, etiology, demography and bibliography of "catatonic," "hebephrenic," "epileptic," "paranoid," "obsessive," "compulsive," "phobic" and "aphasic" clients. May be repeated for credit.

536 Pathology: Affective & Psychosomatic Disorders (3)

Prerequisites: Counseling 532 and consent of instructor. Phenomenology, etiology, demography and bibliography of "addicts," "defilers," "deprivers," "derelicts," "hypochon-

driacs," "neurasthenics," "anxietics" and "melancholics." May be repeated for credit.

581 Fieldwork (3)

Prerequisites: approval by Academic Review Board and admission to counseling credential program. Supervised practice in helping troubled clients in a public school setting. A weekly casework consultation seminar. Required for counseling credential. May be repeated for credit.

582 Advanced Fieldwork (3)

Prerequisites: successful completion of Counseling 581 and approval by the Academic Review Board. Supervised practice in helping troubled clients in educational and related settings. Weekly casework consultation seminar. Required for counseling credential. May be repeated for credit.

583 Internship in School Psychology (3)

Prerequisites: Counseling 515, 523, admission to school psychology credential program and approval by Academic Review Board. Supervised practice in helping troubled clients in a public school setting. Weekly casework consultation seminar. Required for school psychology credential. May be repeated for credit.

584 Internship (1-6)

Prerequisites: Counseling 516 and approval by Academic Review Board. Supervised practice in helping troubled clients in educational, enforcement, correctional and/or health care agencies. Weekly casework consultation seminar. May be repeated for credit.

595 Competency Certification Seminar (1-3)

Prerequisite: approval by Academic Review Board. Candidates present written, live, videotape or audiotape samples to the Board of Professional Supervisors, to acquire exit skill ratings on the competencies required. May be repeated for credit.

597 Project (1-3)

Prerequisite: consent of instructor. Student invents and devises a tool, instrument or technique and reports. May be repeated for credit.

598 Thesis (1-3)

Prerequisite: consent of instructor. Writing of a thesis. May be repeated for credit.

599 Independent Research (1-3)

Prerequisite: consent of instructor. Research and development in counseling pursued independently with periodic conference with instructor. May be repeated for credit.

Department of Educational Administration

Department Chair: Kenneth Preble

Department Office: Education Classroom 558

Programs Offered

Master of Science in Education

Concentration in Educational Administration

Internship in Educational Administration

Administrative Services Credential Programs

Preliminary and Professional

Faculty

Walter Beckman, William Callison, Tracy Gaffey,

Kenneth Preble, Stanley Rothstein

Mission

The mission of the Department is to provide leaders in the quest for excellence in education. Such leaders place the highest priority on teaching and learning, and regard their own development as a lifelong process.

INTERNSHIP IN EDUCATIONAL ADMINISTRATION

The Department of Educational Administration has a program for Interns in Educational Administration which is approved by the California Commission for Teacher Credentialing. Because regulations governing this program change, students should contact the department office for current information and requirements.

ADMINISTRATIVE SERVICES CREDENTIAL

The Administrative Services Credential programs of the Department of Educational Administration are approved by the Commission for Teacher Credentialing. Because regulations governing these programs change, students should contact the department office for current information and requirements.

Preliminary Credential

The Preliminary Administrative Services Credential is the "Step 1" administrative credential in California, requiring a total of 28-33 units of work (which may be incorporated into the student's master's degree program). Upon receipt of the Preliminary credential, one is expected to obtain administrative employment in the California public schools within 5 years. Otherwise, according to current law, the credential lapses.

Professional Credential

The Professional Administrative Services Credential is the "Step 2" administrative credential, requiring a total of 24 semester hours. One must complete work to earn it within 3 years of one's first administrative employment. However, it is legally permissible for the student to earn up to 50% of the units for it (i.e., 12 units) before beginning administrative employment. Please note that the Preliminary Credential is a prerequisite to entry to the program for the Professional Credential.

For Further Information

Please contact the Department office (EC-558), phone 773-3911. Cal State Fullerton is one of the first institutions of higher education in California to have both credential programs already approved and in operation. At this early stage, it is vital that you have up-to-date individual advisement in planning your program.

MASTER OF SCIENCE IN EDUCATION (EDUCATIONAL ADMINISTRATION)

The principal objective of the curriculum is to prepare carefully selected individuals for certain leadership positions in educational administration. The program is designed to help these individuals gain the technical knowledge and scholarship requisite to high achievement in these positions.

Admission to Graduate Standing: Conditionally Classified.

University requirements include: a baccalaureate degree from an accredited institution and a grade-point average of at least 2.5 in the last 60 semester units attempted (see "Graduate Admissions" section of this catalog for complete statement and procedures). In addition, an applicant should have a successful teaching experience in an elementary or secondary school, or community college. (If such experience is not available, other experience in related fields is a recommended alternative if approved by a graduate adviser before starting the program).

Graduate Standing: Classified

A student who meets the admission requirements and has a minimum 2.5 GPA, in previous academic and related work, may be granted classified graduate standing upon the development and approval of a study plan.

Study Plan

The study plan must include 30 units of committee-approved course work 500 level. Course requirements include field experience and a project.

No more than nine units of postgraduate work taken prior to classified standing may be applied to a student's master's degree program.

Students concentrating in educational administration will take Educational Administration 503, Foundations for Administrative Leadership, as soon as

they identify their interest in this degree. To continue in the program beyond this course, the student must be granted a "letter of admission to the program" and possess an official program evaluation. Students who desire only isolated courses from the program are normally denied admission to such courses. The adviser-approved 30 units (minimum) on the study plan will include:

Units

Core course work	9
Ed Admin 503 Foundations for Administrative Leadership (3)	
Ed Admin 505 Supervision of Curriculum (3)	
Ed Admin 510 Research Design and Analysis (3)	
Concentration in Educational Administration	21
Each of the following (no grade below C):	
Ed Admin 561 Governance, Systems, School and Community (3)	
Ed Admin 563 School Personnel Administration (2)	
Ed Admin 564 Seminar in School Law (2)	
Ed Admin 565 Seminar in School Finance, Business Administration and Buildings (2)	
Ed Admin 588 Organization Theory and Management (3)	
Ed Admin 567A,B Fieldwork (2,2)	
Ed Admin 597 Project (2)	
One of the following:	
Ed Admin 566 Elementary Administration and Supervision (3)	
Ed Admin 586 Secondary Administration and Supervision (3)	
Total	30
For advisement and further information, consult the graduate program adviser.	

Educational Administration Courses

501 Administrator Assessment (1)

Prerequisite: California Preliminary Administrative Services Credential. Assessment provides a general profile of the candidate for the California Professional Administrative Services Credential, in terms of strengths and areas for improvement. Evaluates skills and knowledge expected for the Preliminary Administrative Services Credential and introduces the Professional Credential program.

503 Foundations for Administrative Leadership (3)

Prerequisite: consent of instructor. Cultures and values to which schools must contribute. Community sociology, tax systems and public administration; the literature of leadership. Screening for admission to program. Required of all students during their first registration in school administration.

505 The Supervision of Curriculum (3)

Development of a quality program of instruction in elementary and secondary schools; appraisal of programs of instruction; advanced principles of curricular review and modification. Evaluation of subject matter competence in supervisory specialization.

510 Research Design and Analysis (3)

(Same as Ed Sec 510)

511 Instructional Leadership (3)

Prerequisites: California Preliminary Administrative Services Credential and Ed Adm 501 or departmental consent. Improving curriculum and instruction through management strategies, human relations skills, learning and instructional theory, educational trends and issues, and societal needs; includes planned field experience (1 unit). Meets California Professional Administrative Services Credential competency requirement (CTC)B2A(2).

512 Application of Organizational Theory (3)

Prerequisites: California Preliminary Administrative Services Credential and Ed Adm 501 or departmental consent. Major emphases include organizational theory, evaluation, and change implementation in educational organizations. Organizational relationships, both formal and informal, are included. Includes planned field experience (1 unit). Meets California Professional Administrative Services Credential competency requirement (CTC)B2A(1).

513 Evaluation Strategies (2)

Prerequisites: California Preliminary Administrative Services Credential and Ed Adm 501 or departmental consent. Development of skills to evaluate program and curriculum, including specially funded programs. Specific emphases include assessing teaching effectiveness and pupil achievement. Includes planned field experience (1 unit). Meets California Professional Administrative Services Credential competency requirement (CTC)B2A(3).

521 Fiscal Management (2)

Prerequisites: California Preliminary Administrative Services Credential and Ed Adm 501 or departmental consent. Management of fiscal problems, such as effects of contractual obligations and district-level funding and budgeting procedures. Includes planned field experience (1 unit). Meets California Professional Administrative Services Credential competency requirement (CTC)B2A(6).

522 Policy Development, School Law & Political Relationships (3)

Prerequisites: California Preliminary Administrative Services Credential and Ed Adm 501 or departmental consent. Relationships between policy development and school law in the context of political, legal and societal forces affecting school practice. Includes planned field experience (1 unit). Meets California Professional Administrative Services Credential competency requirement (CTC)B2A(5).

523 Management of Human and Material Resources (2)

Prerequisites: California Preliminary Administrative Services Credential and Ed Adm 501 or departmental consent. Staffing strategies and personnel relations management, as well as management of office, physical plant and support services. Planning for future needs. Includes planned field experience (1 unit).

Meets California Professional Administrative Services Credential competency requirement.

531 Staff Development (2)

Prerequisites: California Preliminary Administrative Services Credential and Ed Adm 501 or departmental consent. Models and specific strategies for working with others in planning staff development to enhance learning and performance of adult learners (staff). Includes planned field experience (1 unit). Meets California Professional Administrative Services Credential competency requirement.

532 Cultural and Socioeconomic Diversity (2)

Prerequisites: California Preliminary Administrative Services Credential and Ed Adm 501 or departmental consent. Educational implications of demographic trends; diversity of pupil needs, values and language; building parent and community understanding/advocacy for the educational program. Includes planned field experience (1 unit). Meets California Professional Administrative Services Credential competency requirement.

533 Supervision and Evaluation of Staff (3)

Prerequisites: California Preliminary Administrative Services Credential and Ed Adm 501 or departmental consent. Analysis of supervision and staff evaluation models. Focuses on establishing supervisor-teacher rapport, observing in the classroom, teacher conferencing and writing evaluation reports. Elective course in California Professional Administrative Services Credential program.

561 Governance, Systems, School and Community (3)

Structure, functions, trends, fiscal responsibilities and issues in the government of education at federal, state, county and local school district levels. School organization and administration. Community involvement; school-community participation and communication.

563 School Personnel Administration (2)

Prerequisite: Ed Adm 503. School personnel management, collective negotiations and role definition.

564 Seminar in School Law (2)

Prerequisite: consent of instructor. School law as a reflection of public policy. California Education Code and the California Administrative Code, Title 5, and county counsel opinions: administration, instruction and financial management of public schools; legal basis for public education in California.

565 Seminar in School Finance, Business Administration and Buildings (2)

Prerequisite: consent of instructor. School finance, business administration and buildings and the effective educational program. Financial principles. School revenues and expenditures, budgetary procedures and processes, cost analysis, business management and salary policies.

566 Elementary Administration and Supervision (3)

Prerequisites: Ed Adm 561. Leadership roles of elementary school principal and supervisor. Pupil personnel and instructional program in elementary school; working relations and morale among staff, community and pupils; parent education; relations with central district staff; management and recordkeeping functions; teacher evaluation.

567A,B Fieldwork (2,2)

Prerequisites: Ed Adm 566 or 586. Directed fieldwork in administrative areas in school systems.

586 Secondary Administration and Supervision (3)

Prerequisites: Ed Adm 561. Leadership roles of the secondary school principal and supervisor, pupil personnel and instructional program in secondary schools; development and administration of vocational education; morale among staff; community and pupils; relations with central district staff; management functions; teacher evaluation.

588 Organization Theory and Management (3)

Public school management; planning and practice in task analysis; planning and practice in setting of goals and objectives; implementation of plans related to goals; management tools; social political and economic forces affecting education; decision making.

593 Administering the Least Restrictive Environment (3)

The role of the administrator in providing educational programs for exceptional pupils in environments that maximize contact with non-exceptional pupils. Emphasis will be placed on the implementation of the legislative mandates of Public Law 94-142, the Education for All Handicapped Children Act, and Assembly Bill 1250.

597 Project (1-3)

Prerequisites: EdAdm 566 or 586 and ED-TE 510, or consent of instructor. Individual research on a graduate project, with conferences with a faculty advisor, culminating in a project. Should be taken for 1 unit each time, total of 2 units required.

599 Independent Graduate Research (1-3)

Prerequisite: consent of instructor. Independent inquiry for qualified students.

Both semesters of the program entail a commitment from 8 a.m. to 4 p.m. Monday through Friday, plus additional time for preparation.

Admission Procedures and Criteria

Admission to the university does not include admission to the multiple subject credential preparation program. Students must apply for admission into the multiple subject credential program the semester prior to anticipated enrollment in the program. Filing deadlines are February 28 (to begin the program the following fall) and September 30 (to begin the program the following spring).

Application for admission into the multiple subject credential preparation program is evaluated according to criteria of scholarship, breadth of understanding, professional aptitude, physical and mental fitness, fundamental skills, and personality and character. Evidence in relation to criteria are submitted at time of application and include the following:

1. Overall grade point average in upper half of those students in candidate's discipline.
2. Passage of the Core Battery (General Knowledge Section) of the National Teacher Examination or completion of a program of studies by which the exam may be waived (Waiver Program).
3. Passage of the California Basic Educational Skills Test (CBEST).
4. Satisfactory completion of prerequisite courses:
 - a. Child Dev 380, Middle Childhood (3 units), and
 - b. Ed Elm 315, Introduction to Elementary Classroom Teaching (3 units).
5. Recommendations from academic faculty, school personnel, and/or other appropriate persons.
6. Autobiography.

Further evidence is provided subsequent to application when opportunity is provided for the following: interview with program faculty; aptitude test; and hearing test. T.E. scores and certificate of clearance with respect to records of criminal record.

Details concerning admission procedures and criteria are given in the Graduate Catalog.

Admission to the second semester is contingent upon successful completion of the first semester.

Students must apply for admission into the multiple subject credential program the semester prior to anticipated enrollment in the program. Filing deadlines are February 28 (to begin the program the following fall) and September 30 (to begin the program the following spring).

Admission Procedures and Criteria

Admission to the university does not include admission to the multiple subject credential preparation program. Students must apply for admission into the multiple subject credential program the semester prior to anticipated enrollment in the program. Filing deadlines are February 28 (to begin the program the following fall) and September 30 (to begin the program the following spring).

Application for admission into the multiple subject credential preparation program is evaluated according to criteria of scholarship, breadth of understanding, professional aptitude, physical and mental fitness, fundamental skills, and personality and character. Evidence in relation to criteria are submitted at time of application and include the following:

1. Overall grade point average in upper half of those students in candidate's discipline.
2. Passage of the Core Battery (General Knowledge Section) of the National Teacher Examination or completion of a program of studies by which the exam may be waived (Waiver Program).
3. Passage of the California Basic Educational Skills Test (CBEST).
4. Satisfactory completion of prerequisite courses:
 - a. Child Dev 380, Middle Childhood (3 units), and
 - b. Ed Elm 315, Introduction to Elementary Classroom Teaching (3 units).
5. Recommendations from academic faculty, school personnel, and/or other appropriate persons.
6. Autobiography.

Further evidence is provided subsequent to application when opportunity is provided for the following: interview with program faculty; aptitude test; and hearing test. T.E. scores and certificate of clearance with respect to records of criminal record.

Details concerning admission procedures and criteria are given in the Graduate Catalog.

Admission to the second semester is contingent upon successful completion of the first semester.

Department of Elementary and Bilingual Education

Chair: Shirley Hill

Department Office: Education Classroom 379

Programs Offered

Master of Science in Education

Concentrations:

Bilingual/Bicultural (Spanish-English),
Elementary Curriculum and Instruction

Basic Teacher Credential Programs

Multiple Subject Credential

Faculty

B.J. Barnes, Carol Barnes, Mildred Donoghue,
S. Ana Garza, Shirley Hill, Emma Holmes,
Bernard Kravitz, Norma Molina, Ruth Nolte,
Donald Pease, Hallie Yopp

Multiple Subject Credential and Waiver Program

At CSUF, one's teacher preparation is a two-semester program taken during the fourth and/or fifth year of college. Since students will be devoting their first three years of work to completing baccalaureate degree requirements and, possibly, waiver program requirements, it is essential that students consider their selection of an academic major carefully. Persons interested in working as bilingual teachers, by earning a Multiple Subject Credential with a Bilingual Emphasis, might consider majoring in a foreign language. Majors in the social sciences, humanities, or natural sciences can also be excellent backgrounds for careers in teaching. According to California law, any academic major can be selected. (A major in "Education" is not allowed.)

Multiple Subject (Elementary) Professional Preparation Program

The multiple subject professional preparation program is a two-semester sequence as follows:

First Semester:

Ed Elm 430A Foundations in Elementary School Teaching (3)

Ed Elm 430B Curriculum and Methods in Elementary School Teaching (1)

552 Cultural and Bilingual Education (3)
Prerequisite: Ed Elm 430A. This course provides a foundation for understanding the cultural and linguistic diversity of the student population. It includes an overview of the history and current issues in the field of bilingual education, as well as an examination of the role of the teacher in a culturally responsive classroom. This course is required for the Multiple Subject Credential with a Bilingual Emphasis.

553 Supervision and Evaluation of Staff (3)
Prerequisites: California Preliminary Administrative Services Credential and Ed Adm 501 or departmental consent. Analysis of supervision and staff evaluation models. Focuses on establishing supervisor-teacher rapport, observing in the classroom, teacher conferencing and writing evaluation reports. Elective course in California Professional Administrative Services Credential program.

554 Governance, Systems, School and Community (3)
Structure, functions, trends, fiscal responsibilities and issues in the government of education at federal, state, county and local school district levels. School organization and administration. Community involvement, school-community participation and communication.

555 School Personnel Administration (2)
Prerequisite: Ed Adm 503. School personnel management, collective negotiations and role definition.

556 Seminar in School Law (2)
Prerequisite: consent of instructor. School law as a reflection of public policy. California Education Code and the California Administrative Code, Title 5, and county counsel opinions. Administration, instruction and financial management of public schools. Legal basis for public education in California.

557 Seminar in School Finance, Business Administration and Buildings (2)
Prerequisite: consent of instructor. School finance, business administration and buildings and the effective educational program. Financial principles. School revenues and expenditures, budgetary procedures and processes, cost analysis, business management and facility policies.

558 Elementary Administration and Supervision (3)
Prerequisite: Ed Adm 501. Leadership roles of elementary school principal and supervisor. Pupil personnel and instructional program in elementary school; working relations and multiple staff; community and public, parent education; relations with central district staff; management and recordkeeping functions; teacher evaluation.

Ed Elm 430C Supervised Fieldwork in Elementary Teacher Education (3)

Ed Elm 433 Reading Instruction in the Public Schools (3)

Ed Elm 439A Student Teaching in the Elementary School (4)

Ed Elm 439B Seminar in Elementary Student Teaching (1)

Second Semester:

Ed Elm 429 Individualized Instruction (3)

Ed Elm 430B Curriculum and Methods in Elementary School Teaching (2)

Ed Elm 439A Student Teaching in the Elementary School (8)

Ed Elm 439B Seminar in Elementary Student Teaching (2)

Both semesters of the program entail a commitment from 8 a.m. to 4 p.m. Monday through Friday, plus additional time for preparation.

Admission Procedures and Criteria:

Admission to the university does not include admission to the multiple subject professional preparation program. Students must apply for admission into the multiple subject credential program the semester prior to anticipated enrollment in the program. Filing deadlines are February 28 (to begin the program the following fall) and September 30 (to begin the program the following spring).

Application for admission into the multiple subject credential professional preparation program are evaluated according to criteria (scholarship, breadth of understanding, professional aptitude, physical and mental fitness, fundamental skills, and personality and character). Evidence in relation to criteria are submitted at time of application and include the following:

1. Overall grade-point average in upper-half of those students in candidate's discipline;
2. Passage of the Core Battery (General Knowledge Section) of the National Teacher Examination or completion of a program of studies by which the exam may be waived (Waiver Program);
3. Passage of the California Basic Education Skills Test (CBEST);
4. Satisfactory completion of prerequisite courses:
 - a. Child Dev 390, Middle Childhood (3 units), and
 - b. Ed Elm 315, Introduction to Elementary Classroom Teaching (3 units);
5. Recommendations from academic faculty, school personnel, and/or other appropriate persons; and
6. Autobiography.

Further evidence is provided subsequent to application when opportunity is provided for the following: interview with program faculty, spelling test, speech and hearing test, T.B. screening, and certificate of clearance with respect to absence of criminal record.

Details concerning admission procedures and criteria are available in the Credential Preparation Center.

Admission to the second semester of student teach-

ing is based on continuous and satisfactory progress in the program.

Bilingual-Bicultural Emphasis Program

A multiple subject professional preparation program with a bilingual-bicultural (Spanish-English) emphasis is available. Information about this program is available in the Credential Preparation Center.

Application for Teaching Credentials

Upon completion of a credential program (multiple subject), the credential candidate must submit an application to the Commission on Teacher Credentialing through the Cal State Fullerton credential analyst. The credential analyst is located in the Credential Preparation Center. Additional information on the credential application process is available in the Credential Preparation Center.

MASTER OF SCIENCE DEGREE IN EDUCATION Bilingual/Bicultural Education (Spanish-English)

The program is designed to develop qualified bilingual/bicultural instructors who can work as either classroom or resource teachers, and teacher trainers. It will help individuals to teach others how to provide experiences in the cultural heritage of the target population and develop specific teaching techniques and methods in teaching reading and English as a second language (ESL). The program will also help individuals to interpret and implement research related to bilingual/bicultural children. Individuals will become skilled in their abilities to diagnose learning problems for such students and to develop and implement sound educational strategies.

Admission to Graduate Standing: Conditionally Classified

University requirements include: a baccalaureate from an accredited institution and a grade-point average of at least 2.5 in the last 60 semester units attempted (see section of this catalog on admission of graduates for complete statement and procedures).

Graduate Standing: Classified

A student who meets the admission requirements, and the following requirements, may be granted classified graduate standing: 1) the development of an approved study plan; 2) a basic teaching credential or equivalent experience; 3) an approved major (minimum of 24 units upper division or graduate); 4) a 2.5 grade-point average on previous academic and related work; 5) language competence (English and Spanish) as determined by satisfactory interviews or course work; 6) references and an autobiography; 7) completion of Spanish 466. Credit will be given for previous postbaccalaureate studies when possible. Otherwise, well-qualified students may be admitted with limited subject or grade deficiencies, but these deficiencies must be removed. Grade-point average deficiencies may be removed by a demonstration of competency in the graduate program.

Study Plan

The adviser-approved 30 units (minimum) on the study plan will include the following:

	Units
Core course work	9
Ed Elm 511 Survey of Educational Research (3)	
Ed Elm 500 Development and Implementation of Bilingual Bicultural Curriculum (3)	
Ed Elm 541 Psychological and Sociological Foundations of Bilingual Bicultural Education (3)	
Other Required Teacher education courses	3
Ed Elm 542 Current Issues and Problems in Bilingual Bicultural Education	
Course work outside bilingual-bicultural education	12
Chicano 431 The Chicano Child (3)	
One of the following:	
For Lang Ed 443A Principles of Teaching English to Speakers of Other Languages (3)	
For Lang Ed 443B Principles of Teaching English to Speakers of other Languages (3)	
One of the following:	
For Lang Ed 527 Theory of Bilingual Language Acquisition (3)	
For Lang Ed 595 Curriculum and Program Design for TESOL (3)	
One of the following:	
Chicano 420 Spanish for the Elementary School Teacher in the Barrio (3)	
Chicano 438 Issues in Bilingual/ Cross-Cultural Education (3)	
Chicano 445 History of the Chicano (3)	
Elective selected with approval of adviser	3
Culminating experience	3
One of the following:	
Ed Elm 594 Research Seminar (3)	
or Ed Elm 597 Project (3)	
or Ed Elm 598 Thesis (3)	
Total units	30

For further information consult the graduate program adviser.

MASTER OF SCIENCE IN EDUCATION Elementary Curriculum and Instruction

The program is designed to help career classroom teachers upgrade their skills, become informed about new ideas in elementary teaching, and prepare for curriculum leadership roles in elementary classroom teaching, early childhood education and staff development in public and private schools. There are also two emphases: Staff Development/Mentor Teacher and Early Childhood Education.

Admission to Graduate Standing: Conditionally Classified

University requirements include a baccalaureate from an accredited institution and a grade-point average of at least 2.5 in the last 60 semester units attempted (see section of this catalog on admission of graduates for complete statement and procedures).

Graduate Standing: Classified

A student who meets the admission requirements and the following requirements may be granted clas-

sified graduate standing upon the development of an approved study plan; a basic teaching credential or equivalent experiences, an approved major (minimum of 24 units upper division or graduate), a 2.5 grade-point average on previous academic and related work, satisfactory, interview, references and an autobiography. Credit will be given for previous postbaccalaureate studies when possible. Otherwise well-qualified students may be admitted with limited subject or grade deficiencies, but these deficiencies must be removed. Grade-point average deficiencies may be removed by a demonstration of competency in the graduate program.

Study Plan

The adviser-approved 30 units (minimum) on the study plan will include the following:

	Units
Core course work	9
Ed Elm 511 Survey of Educational Research (3)	
Ed Elm 529 Graduate Studies: Learning Theory for Classroom Use (3)	
Ed Elm 536 Curriculum Theory and Development (3)	
Course work in concentration	12
One of the following:	
Ed Elm 441 Reading in Early Childhood (3)	
Ed Elm 527 Graduate Seminar in Developmental Psychology (3)	
Ed Elm 538 Graduate Studies: Early Childhood Education (3)	
Ed Elm 539 Clinical Supervision: Analyzing Effective Teaching (3)	
Ed Elm 553 Models of Teaching (3)	
Three of the following:	
Ed Elm 530 Graduate Studies in Elementary Education: Second Languages (3)	
Ed Elm 531 Graduate Studies in Elementary Education: Language Arts (3)	
Ed Elm 532 Graduate Studies in Elementary Education: Mathematics (3)	
Ed Elm 533 Graduate Studies in Elementary Education: Science (3)	
Ed Elm 534 Graduate Studies in Elementary Education: Social Studies (3)	
Ed Elm 535 Graduate Studies in Elementary Education Reading (3)	
Ed Elm 537 Graduate Studies: Current Issues and Problems (3)	
Electives selected with approval of the adviser	6
Culminating experience	3
One of the following:	
Ed Elm 594 Research Seminar (3)	
or Ed Elm 597 Graduate Project (3)	
or Ed Elm 598 Thesis (3)	
Total	30

For further information, consult graduate program adviser.

MASTER OF SCIENCE IN EDUCATION Elementary Curriculum and Instruction (Emphasis in Early Childhood Education)

This emphasis has been designed to meet the currently greater community and professional aware-

ness of the importance of quality education during the critical early years of school. The educational demand for sound planning and instruction in pre-school, kindergarten, and the primary grades has increased the need for effective specialists in Early Childhood Education.

Admission to Graduate Standing: Conditionally Classified

University requirements include a baccalaureate from an accredited institution and a grade-point average of at least 2.5 in the last 60 semester units attempted (see section of the University catalog on admission of graduates for complete statement and procedures).

Graduate Standing: Classified

A student who meets the admission requirements and the following requirements may be granted classified graduate standing upon the development of an approved study plan; a basic teaching credential or equivalent experiences, an approved major (minimum of 24 units upper division or graduate), and a 2.5 grade-point average on previous academic and related work. Credit will be given for previous post-baccalaureate studies when possible. Otherwise well-qualified students may be admitted with limited subject or grade deficiencies, but these deficiencies must be removed. Grade-point average deficiencies may be removed by a demonstration of competency in the graduate program.

Study Plan

The adviser-approved 30 units (minimum) on the study plan will include the following:

	Units
Core Course Work	9
Ed Elm 511 Survey of Educational Research (3)	
Ed Elm 529 Graduate Studies: Learning Theory for Classroom Use (3)	
Ed Elm 536 Curriculum Theory and Development (3)	
Early Childhood Specialization Coursework	9
Ed Elm 441 Reading in Early Childhood (3)	
Ed Elm 538 Graduate Studies in Elementary Education: Early Childhood Education (3)	
Ed Elm 527 Graduate Seminar in Developmental Psychology: The Human from Conception to Eight Years (3)	
or Ed Elm 591A Fieldwork and Seminar in Early Childhood Education (3)	
Curriculum-Focused Coursework	6

Two of the following:

- Ed Elm 530 Grad Studies in Elem Ed: Second Languages (3)
- Ed Elm 531 Grad Studies in Elem Ed: Language Arts (3)
- Ed Elm 532 Grad Studies in Elem Ed: Mathematics (3)
- Ed Elm 533 Grad Studies in Elem Ed: Science (3)
- Ed Elm 534 Grad Studies in Elem Ed: Social Studies (3)
- Ed Elm 535 Grad Studies in Elem Ed: Reading (3)
- Ed Elm 537 Grad Studies in Elem Ed: Current Issues and Problems (3)

Elective:

One elective approved by advisor	3
Culminating Experience	3
One of the following:	
Ed Elm 594 Research Seminar (includes project) (3)	
or Ed Elm 597 Graduate Project (3)	
or Ed Elm 598 Thesis (3)	
Total	30

For further information, consult the graduate program adviser.

MASTER OF SCIENCE IN EDUCATION Elementary Curriculum and Instruction (Emphasis in Staff Development)

This program is designed to enable educators to assume leadership roles in staff development in school districts. The sequence of courses is also designed to help mentor teachers and potential mentor teachers to understand contemporary trends and research findings in elementary curriculum and instruction.

Admission to Graduate Standing: Conditionally Classified

University requirements include a baccalaureate from an accredited institution and a grade-point average of at least 2.5 in the last 60 semester units attempted (see section of the University catalog on admission of graduates for complete statement and procedures).

Graduate Standing: Classified

A student who meets the admission requirements and the following requirements may be granted classified graduate standing upon the development of an approved study plan; a basic teaching credential or equivalent experiences, an approved major (minimum of 24 units upper division or graduate), and a 2.5 grade-point average on previous academic and related work. Credit will be given for previous post-baccalaureate studies when possible. Otherwise well-qualified students may be admitted with limited subject or grade deficiencies may be removed. Grade-point average deficiencies, but these deficiencies must be removed by a demonstration of competency in the graduate program.

Study Plan

The adviser-approved 30 units (minimum) on the study plan will include the following:

Core Course Work	9
Ed Elm 511 Survey of Educational Research (3)	
Ed Elm 529 Grad Studies: Learning Theory for Classroom Use (3)	
Ed Elm 536 Curriculum Theory and Development (3)	
Staff Development/Mentor Teacher Specialization Coursework	9
Ed Elm 539 Clinical Supervision: Analyzing Effective Teaching (3)	
Ed Elm 553 Models of Teaching (3)	
Ed Elm 521 The Study of Teaching (3)	
Curriculum-Focused Coursework	6
Two of the following:	

- Ed Elm 530 Graduate Studies in Elementary Education: Second Languages (3)
- Ed Elm 531 Graduate Studies in Elementary Education: Language Arts (3)
- Ed Elm 532 Graduate Studies in Elementary Education: Mathematics (3)
- Ed Elm 533 Graduate Studies in Elementary Education: Science (3)
- Ed Elm 534 Graduate Studies in Elementary Education: Social Studies (3)
- Ed Elm 535 Graduate Studies in Elementary Education: Reading (3)
- Ed Elm 537 Graduate Studies: Current Issues and Problems (3)

Elective:

- One elective approved by advisor 3
- Culminating Experience 3
- One of the following:
- Ed Elm 594 Research Seminar (includes project) (3)
- or Ed Elm 597 Graduate Project (3)
- or Ed Elm 598 Thesis (3)
- Total 30

For further information, consult graduate program adviser.

Elementary and Bilingual Education Courses

315 Introduction to Elementary Classroom Teaching (3)

Prerequisite: Psych 101. An exploratory course for students considering careers in elementary school teaching. Elementary classroom field assignments (4 hours weekly), on-campus seminars (2 hours weekly) and screening procedures for admission to Multiple Subject Credential. Topics include careers, curriculum, classroom management. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

415 Microcomputers in the Elementary Classroom (3)

Prerequisite: teaching credential or candidacy for credential. Uses of microcomputers in elementary classroom. Development of computer related instructional materials for elementary schools. Evaluation of programs/equipment suitable for elementary children. Examination of issues involved in microcomputers in elementary schools.

429 Individualized Instruction (1-3)

The principles and operational components of individualized teaching and learning. Classroom implementation of individualized instructional strategies. May be repeated for a maximum credit of 3 units. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

430A Foundation in Elementary School Teaching (3)

Prerequisite: admission to teacher education. Children's learning styles, and their overall growth and development. To be taken concurrently with Ed Elm 430B,C and 433. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

430B Curriculum and Methods in Elementary School Teaching (1-3)

Prerequisite: admission to teacher education. Elementary school curricula, instructional materials, and teaching tech-

niques. To be taken concurrently with Ed Elm 430A,C, and 433. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

430C Supervised Fieldwork in Elementary Teacher Education (3)

Prerequisite: admission to teacher education. Corequisites: Ed Elm 430A,B and 433. Students will serve as teacher participants in an assigned elementary school classroom. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

433 Reading Instruction in Public Schools (3)

Prerequisite: admission to teacher education. Experiences in the teaching of reading in which students will demonstrate the behavior necessary to work with children in public schools. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

437 Early Childhood Education (3)

Current literature and recent research in the education of young children through individual and group study. Problems in cognitive processes, content, structure and instruction at this level.

439A Student Teaching in the Elementary School (4-12)

Prerequisites: Ed Elm 430A,B,C, 433 and admission to student teaching. Corequisite: Ed Elm 439B. Participation in a regular elementary school teaching program for the full school day. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

439B Seminar in Elementary Student Teaching (1-3)

Prerequisites: Ed Elm 430A,B,C, 433 and admission to student teaching. Corequisite: Ed Elm 439A. Seminar in problems and procedures of elementary school teaching. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

441 Reading in Early Childhood (3)

Prerequisite: consent of instructor or student teaching. Strategies and problems of teaching reading to young children. Recent research in the fundamental skills of communication among pupils in the preschool, kindergarten, and primary grades. Curriculum developments and materials.

454 Bilingual Education in the United States (3)

Prerequisites: some knowledge of bilingual education. The literature, the laws, the history and the impact bilingual educational programs have had on the speaker of the foreign languages in the United States.

461 Instructional Techniques in Bilingual Education (3)

Prerequisites: Ed Elm 454, Foreign Language Education 443. Purposes, philosophies and concepts of bilingual education. Theories of language learning, cultural differences in learning processes and methodologies of bilingual instruction.

462 Fieldwork in Bilingual Education (3)

Prerequisite: Ed Elm 461. Fieldwork in bilingual settings, for the Bilingual/Cross-Cultural Specialist Credential. The student must be enrolled in the second semester of training.

463 Spanish Reading and Language Arts (3)

Prerequisites: Ed Elm 461, knowledge of Spanish (intermediate level) and postbaccalaureate standing or consent of instructor. Theories and methods for Spanish reading instruction. Methods and materials for teaching Spanish language arts including grammar, composition and spelling.

499 Independent Study (1-3)

Prerequisites: senior or graduate standing, consent of instructor prior to registration. Individual investigation under supervision of a faculty member. Only students of demonstrated capacity and maturity will be approved. May be repeated for credit.

500 Bilingual-Bicultural Curriculum (3)

Identification and development of bilingual-bicultural curricula relative to Spanish-speaking students. Adaptation and modification of existing curricula. Development of units of instruction for use in bilingual-bicultural classrooms.

511 Survey of Educational Research (3)

Descriptive statistics and statistical inferences in educational research. Representative research papers. Principles of research design. Prepare papers using research findings.

512 Improving Elementary Students Writing with Microcomputers (1)

Prerequisites: Ed Elm 415 and teaching credential or permission of instructor. Strategies for facilitating functional and creative writing of elementary children through use of microcomputer. Emphasis on keyboarding, word processing, and writing processes of children. Evaluation of current practices and research findings.

513 Teaching Utilities for Elementary School Teachers (1)

Prerequisites: Ed Elm 514 and teaching credential or permission of instructor. Strategies for improving teaching of elementary students through use of gradebook programs, word search generators, test generators, graphic programs, and instructional management software programs on microcomputers.

514 Strategies for Using Data Base Management with Elementary Children (1)

Prerequisites: Ed Elm 415 and teaching credential or consent of instructor. Strategies for elementary school teachers to develop and use data base management with children. Fact finding, classification, inferences and generalizations considered. Design continuum of data base competencies for children.

515 Problem Solving Strategies Including Logo (3)

Prerequisites: Ed Elm 415 and teaching credential or permission of instructor. Strategies for using logo graphics, words and lists, and other microcomputer problem-solving applications with elementary school children. Design and use of microworlds to facilitate children's development of problem-solving skills.

516 Integrating Elementary School Software into the Curriculum (1)

Prerequisites: Ed Elm 415 and teaching credential or consent of instructor. Effective integration of elementary school software into the curriculum of elementary schools. Emphasis on integration into current goals of elementary school instruction. Evaluation of current computer instruction.

517 Practicum: Elementary School Teachers and Computers (3)

Prerequisite: Ed Elm 516. Strategies for effectively using computers with elementary school children to improve learning; course includes field work assignments in elementary schools on campus seminars.

518 Telecomputing for Elementary School Teachers (1)

Prerequisites: Ed Elm 415 and teaching credential or permission of instructor. The fundamentals of using a microcom-

puter as a communication tool. Topics include a review and demonstration of remote information systems, use of terminal program, process of computer communication, and strategies for teaching elementary student about computer-based telecommunications systems.

520 Supervision of Elementary School Student Teachers (1)

Prerequisites: Ed Elm 439A, B or teaching credential. Prepares classroom teachers to become effective elementary school master teachers. An overview of the student teaching program will be presented. Skills needed to guide student teachers will be examined.

521 The Study of Teaching (3)

Prerequisite: Teaching credential or permission of instructor. A systematic study of the teaching process. Examination of the research methodology used to analyze teaching, the current knowledge of the association between teaching processes and student learning, and the implications of the research for the classroom.

526 Differentiated Staffing in Public Schools (3)

Prerequisite: teaching credential or consent of instructor. Seminar: the processes and techniques in working with parents, paraprofessionals, specialists and community people. Supervision and interaction with adults.

527 Graduate Seminar in Developmental Psychology: The Human from Conception Through Eight Years (3)

Prerequisites: teaching credential or consent of instructor. The physical, social, cognitive-intellectual and emotional development of human individuals from conception to middle childhood. Current problems, theories and research.

529 Graduate Studies: Learning Theory for Classroom Use (3)

Major theoretical positions in planning and interpreting classroom practices. Educational research findings, implications for curriculum developments and teaching practices.

530 Graduate Studies in Elementary Education: Second Languages (3)

Prerequisites: teaching credential or consent of instructor. Seminar: significant research, curriculum developments and materials, criteria for planning and improving second language programs including those for English as a second language.

531 Graduate Studies in Elementary Education: Language Arts (3)

Prerequisite: teaching credential or consent of instructor. Seminar: significant research, trends and problems in teaching the fundamental skills of communication. Curriculum developments and materials, and criteria for planning and improving language arts programs.

532 Graduate Studies in Elementary Education: Mathematics (3)

Prerequisites: teaching credential or consent of instructor. Seminar: significant research, curricular developments and materials, criteria for planning and improving mathematics programs and instruction.

533 Graduate Studies in Elementary Education: Science (3)

Prerequisite: teaching credential or consent of instructor. Seminar: research in elementary school science. The development of materials.

534 Graduate Studies in Elementary Education:

Social Studies (3)

Prerequisite: teaching credential or consent of instructor.
Seminar: research developments and materials, criteria for planning and improving social studies programs and current techniques of teaching.

535 Graduate Studies in Elementary Education:

Reading (3)

Prerequisite: teaching credential or consent of instructor.
Seminar: research developments and materials, criteria for planning and improving reading programs, and current instructional strategies.

536 Curriculum Theory and Development (3)

Prerequisite: teaching credential or consent of instructor.
Seminar: the school curriculum including the forces operating on the curriculum and the participants involved in curriculum building. The process of curriculum building.

537 Graduate Studies: Current Issues and Problems (3)

Prerequisite: teaching credential or consent of instructor.
Problems and issues in elementary education, their causes and possible solutions.

538 Graduate Studies: Early Childhood Education (3)

Prerequisite: teaching credential or consent of instructor.
Seminar: Application of significant research in the education of young children. Current instructional strategies and criteria for planning and improving programs in early childhood education.

539 Clinical Supervision: Analyzing Effective Teaching (3)

Prerequisite: teaching credential or consent of instructor. A systematic, research-based approach. Identifies basic components needed by teachers, staff developers, and administrators to improve their instructional skills. Includes principles of learning applied to supervision and applied practice in analyzing the instructional process.

541 Psychological and Sociological Foundations of Bilingual-Bicultural Education (3)

Application of psychological and sociological theory and techniques to the design of programs of instruction for limited and non-English-speaking children. The use of these disciplines for the development of emotionally and socially supportive learning environments.

542 Current Issues and Problems in Bilingual-Bicultural Education (3)

Problems and issues in the development and implementation of bilingual-bicultural education.

553 Models of Teaching (3)

Prerequisite: teaching credential or consent of instructor.
Explores varied strategies of instruction, culminating in the identification and study of sixteen unique "models". Examines relationships among theories of learning and instruction. Investigates various instructional alternatives.

591A Fieldwork and Seminar in Early Childhood (3)

Prerequisite: EDELM 538 or consent of instructor. Provides opportunity to demonstrate instructional abilities in working with young children. Also provides opportunity to work with parents, professionals and members of the community in early childhood programs.

591B Fieldwork and Seminar in Early Childhood (3)

Prerequisite: EDELM 538 and 591A, or consent of instructor. Provides opportunities to demonstrate supervisory, coordinating and administrative abilities in working with children, parents, professionals and members of the community in the development of early childhood education programs.

594 Research Seminar (3)

Prerequisite: consent of instructor. The preparation, evaluation, development, and presentation of curriculum research proposals culminating in a graduate project. Individuals and groups will participate in critiquing proposals, curriculum projects, and research results.

595 Advanced Studies (1-3)

Graduate seminars in such areas as behavior, teaching strategies, educational technology, program development, communication theory and interpersonal relations. May be repeated for credit.

597 Project (1-3)

Prerequisite: consent of instructor. Individual research on an empirical project, with conferences with the instructor, culminating in a project.

598 Thesis (1-3)

Prerequisite: consent of instructor. Individual research with conferences with the instructor, culminating in a thesis.

599 Independent Graduate Research (1-3)

Prerequisites: a teaching credential and one year of teaching experience. Independent inquiry.

Department of Health Education, Physical Education and Recreation

Department Chair: Eula Stovall

Department Office: Physical Education 134

Programs Offered

Bachelor of Science in Physical Education

Minor in Health Promotion

Minor in Physical Education

Master of Science in Physical Education

Athletic Training Certification Program

Single Subject Waiver Program in Physical Education for the Ryan Single Subject Credential

Adapted Physical Education Emphasis Credential

Faculty

Gene Adams, C. Ian Bailey, Jean Barrett, William Beam, Anne Marie Bird, Margaret Elliot, M. William Fulton, Robert Garcia, Eric Hanauer, Bonnie Parkhouse, Paul Pastor, Kenneth Ravizza, Roberta Rikli, Diane Ross, Virginia Scheel, Eula Stovall, Carol Weinmann, Ronald Witchey, Michael Yessis

The Department of Health Education, Physical Education and Recreation provides an academic program in the study of human movement designed to prepare graduates for a variety of career options.

Advisement

Undergraduate and graduate students are required to seek academic advisement prior to their first registration at CSUF and continuously throughout completion of their degree programs. Students are assigned a full-time faculty member for academic advisement and graduation checks. Students may come to, or telephone, the department office for further information.

Transfer students should see an adviser immediately regarding transfer credit. For information on general education, consult the Academic Advisement Center.

INTRODUCTION

The primary mission of the department is to advance and disseminate knowledge created through the study of human movement, of leisure needs and interests, and of total health which includes physical, mental, social and emotional dimensions. The secondary mission focuses on: (1) development of knowledges and skills essential for entry into a variety of occupations, (2) development of opportunities for participation in internships or cooperative education work experiences related to academic study, and (3) development of attitudes and behaviors appropriate for promotion and maintenance of personal and environmental health.

The study of human movement encompasses the mechanisms which influence and are significant to participation. These include philosophical, historical, sociological, psychological and biological factors. Environmental determinants, including the social context and movement structures in which activity occurs, are considered.

Career Tracks

The Department of Health Education, Physical Education and Recreation has identified 11 tracks which can help prepare students for careers in the field or for graduate study. These tracks are advisory only, but can be valuable in meeting academic and career objectives. Advisers' office hours for obtaining information on the various tracks are available in the department office. Students are encouraged to contact the adviser in the area of choice. Career opportunity tracks are available in:

- Athletic Training
- Coaching
- Elementary and Secondary Teaching Certification
- Health
- Human Factors
- Humanities—Arts
- Physical Education for the Handicapped
- Recreation
- Sport and Exercise Management
- Sports Careers
- Sports Medicine

ENGLISH PROFICIENCY REQUIREMENT

In order to satisfy the upper-division writing requirement of the university, physical education majors must pass (1) Physical Education 301, Writing Styles for Human Movement Studies, with a grade of C or better; and (2) The Cal State Fullerton Examination in Writing Proficiency (EWP). *Note:* Physical Education 301 cannot be counted as a part of the physical education major, but may count toward general elective units in the 124 unit graduation requirement.

Please see additional information provided in this catalog on the writing requirement.

PERFORMANCE PROFICIENCY REQUIREMENTS

Performance courses should be taken to meet the prerequisite requirements for any analysis series

course. Proficiency screening tests are administered in the analysis classes at the beginning of the semester.

STUDENT AWARDS

Awards are presented each year to the outstanding undergraduate and the outstanding graduate students in the department.

BACHELOR OF SCIENCE IN PHYSICAL EDUCATION

The Department of Health Education, Physical Education and Recreation offers the Bachelor of Science in Physical Education for students preparing to teach, to pursue graduate work in physical education and for careers in business, industry and government service. The degree consists of 124 units with a maximum of 12 lower division units and a minimum of 33 upper division units in physical education. Each course counted toward the major must be completed with a grade of C or higher. All courses counted toward the major must be taken on an option 1 (letter grade) basis.

Transfer students must request 2 copies of transcripts of records of all previous scholastic work from each university or college attended. These transcripts must be sent by the issuing institution directly to the Office of Admissions.

All transfer students must have transcripts evaluated by a department undergraduate adviser prior to registration.

MAJOR IN PHYSICAL EDUCATION

Lower-Division (Maximum of 12 units)

Required Courses:

Physical Education 260 Movement Anatomy (3)
(General human anatomy courses may not be substituted for this requirement. However, such courses are highly recommended.)

A minimum of six courses, one from each of the following areas:

Fitness: Physical Education 100, Physical Conditioning; 102, Jogging; 144, Exercise Weight Control; 146, Body Building.

Aquatics: Physical Education 110, Swimming; 111, Life Saving; 112, Water Polo; 214A, Basic Scuba; 214B, Intermediate Scuba.

Combatives: Physical Education 150, Wrestling; 151, Aikido; 152, Karate; 154, Self-Defense; 155, Fencing.

Individual Sports: Physical Education 104, Horseback Riding; 105, Cycling; 117, Bowling; 118, Archery; 119, Golf; 120, Gymnastics; 122, Sailing; 125, Rock Climbing; 246A, Basic Hatha Yoga.

Court/Racquet Sports: Physical Education 130, Badminton; 131, Tennis; 132, Racquetball.

Team Sports: Physical Education 160, Baseball; 161, Softball; 164, Volleyball; 165, Soccer; 166, Team Handball; 167, Basketball.

(An intercollegiate sports course may be applied in the appropriate area.)

Electives (0-3):

Three additional units of lower division course work may be applied to the major unit requirement.

A maximum of 12 lower-division units may be counted toward completion of the major. However, students may elect to take upper-division work in lieu of further lower-division work excluding requirements stated above. All work taken at other institutions as lower-division work must be counted as such at Cal State Fullerton.

Upper Division (Minimum of 33 units)

Required Courses (21 units):

Physical Ed 300 Principles of Movement (3)
Physical Ed 349 Measurement and Evaluation in Physical Education (3)
Physical Ed 352 Physiology and Exercise (3)
Physical Ed 371 Theory and Principles of Human Motor Learning (3)
Physical Ed 383 Sport Psychology (3)
Six units selected from Physical Ed 380, 381, 382

Electives (12-15 units):

A minimum of 12 to 15 units of upper division course work is required to complete the major unit requirement (to be selected under advisement).

Upper Division Writing Requirement:

(No units toward the major upper-division unit requirement.)

Physical Ed 301 Writing Styles in Human Movement (3)

MINOR IN HEALTH PROMOTION

The department offers a minor in health promotion consisting of 21 units, with a minimum of 12 upper-division units selected in consultation with the minor adviser. The minor in health promotion is offered within a conceptual framework of holism, and may be of interest to students preparing for careers in teaching and health care or helping professions, as well as to students with a personal interest in health enhancement. Course work must be taken on an option 1 (letter grade) basis and completed with a C grade or higher to be counted toward the minor.

Required Courses (12 units):

Chemistry 111 Nutrition and Drugs (3)
or Approved nutrition course (2-3)
Health Ed 101 Personal Health (3) or
Health Ed 321 Drugs and Society (3)
Health Ed 301 Promotion of Optimal Health (3)
Health Ed 355 Health Education for Teachers (3)

Electives (9 units):

Students may elect to take (up to a maximum of 3 units) performance courses which emphasize the application of basic health promotion principles in the student's own life: Physical Education 100, 102-167, 246A, 246B; Dance 122, 126, 132, 142, 222, 232.

Students shall choose additional elective units, with approval of the minor adviser, from approved courses of specific relevance to health promotion

(list available in department office, Physical Education 134).

MINOR IN PHYSICAL EDUCATION

A physical education minor consists of 22 units of approved course work in physical education with a minimum of 19 upper division units. Course work must be completed with a grade of C or higher. All courses counted toward the minor must be taken on an option 1 (letter grade) basis.

Required Courses (13 units):

Physical Ed 260 Movement Anatomy (3)
Physical Ed 300 Principles of Movement (3)
Physical Ed 352 Physiology of Exercise (3)
Select one from Physical Ed 303-319 Analysis of Sport (2)
Select one from Physical Ed 320-338 Techniques of Coaching (2)

Electives (9 units):

Select three from physical Ed 349, 371, 380, 381, 382, 383.

ATHLETIC TRAINING CERTIFICATION

Athletic Training Certification accredited by the National Athletic Trainers Association must be earned in conjunction with a major in physical education. Upon successful completion of the specific requirements listed below, the student must apply through the department to the National Athletic Trainers Association for the certification examination.

1. A bachelor's degree with a major in physical education with a GPA of at least 2.5 overall; 3.0 in the major; and 2.5 in biological science.
2. CPR card (yearly) and current first aid card.
3. The following specific course work (or equivalent):

Bio Sci 361 Human Anatomy (4)
Bio Sci 362 Mammalian Physiology (4)
Physics 211A Elementary Physics (3) or
Chemistry 100 Survey of Chemistry (3)
Chemistry 111 Nutrition and Drugs (3)
Health Ed 101 Personal Health (3)
Health Ed 102 Prevention and First Aid (2)
Physical Ed 260 Movement Anatomy (3)
Physical Ed 300 Principles of Movement (3)
Physical Ed 351 Principles of Conditioning (3)
Physical Ed 352 Physiology of Exercise (3)
Physical Ed 365 Prevention and Care of Athletic Injuries (3)
Physical Ed 366 Advanced Prevention and Care of Athletic Injuries (3)
Physical Ed 371 Theory and Principles of Human Motor Learning (3)
Physical Ed 383 Sport Psychology (3)
Physical Ed 451 Sports Medicine (3)
Physical Ed 496 Clinical Training Internship (6)
(1,000 clock hours)

Recommended courses:

Advanced First Aid
Emergency Medical Training
Health Ed 321 Drugs and Society (3)

TEACHING CREDENTIAL—REQUIREMENTS FOR PHYSICAL EDUCATION MAJORS

The Physical Education Department offers a Waiver Program for obtaining a Ryan Single Subject Credential (K-12) in physical education.

The university program for meeting the *basic* requirements for the teaching credential with a specialization in physical education can be found elsewhere in this catalog (see Teaching Credential Programs in the Academic Programs section). Additional information and requirements for the Department of Health Education, Physical Education and Recreation are as follows:

1. Advisement

The department offers guidance for students considering a teaching career. This is available through the Physical Education Teacher Education Advisement Office. Prospective students should consult with the adviser as early as possible in order to plan and acquire experiences prior to entry into the Teacher Education Program. This will assist students to evaluate their qualifications and to plan appropriate course work.

A screening committee evaluates candidates' qualifications based on grade-point average, required course work and experiences with children and/or adolescents. Applications to the Teacher Education Program may be submitted when all required courses are in progress, or completed, and/or the candidate is within six units of completing the physical education major. The bachelor of science degree is not a prerequisite for admission to the Teacher Education Program.

2. Required Course Work

In addition to, or as part of, the requirements for a major in physical education all candidates for the credential must complete the following with a minimum of a C grade:

Physical Ed 340 Contemporary Movement Environments (equivalent to ED SEC 310)
Physical Ed 349 Measurement and Evaluation in Physical Education (3)
Child Development 386 Adolescence (3)
Physical Ed 396 Tutorial
Physical Ed 496 Practicum

Minimum of one team and one individual analysis class and one technique of coaching class.

3. Completion of the Approved Waiver Program

All candidates for the credential must adequately demonstrate competency in subject matter scope and content. See a listing of the approved physical education waiver under Teaching Credential Programs.

A copy of the waiver may be obtained from the physical education teacher education adviser.

4. Instructional Subject Matter of Physical Education

Students seeking a credential with a specialization in physical education must be able to demonstrate competency in instructional subject matter which is a part of the *regular* physical education program in the public schools. The Department of

Health Education, Physical Education and Recreation specifically requires the following:

- a. Ability to perform and analyze basic movement skills common to a large number of instructional physical activities.
- b. Adequate background and preparation to demonstrate breadth of understanding of the scope, sequence and content of physical education.
- c. Nine units required, of which 6 units must be from the intermediate (B) or advanced (C) levels and at least one course in each of the following five categories: (1) dance, (2) basic movement, (3) gymnastics, (4) sports and games, and (5) aquatics.

Note: Students are urged to consult with the physical education-teacher education adviser before submitting appropriate verification documents required for establishing subject matter competency and before applying to the Physical Education Teacher Education Program.

5. Experiences

Students are expected to have been involved in several leadership experiences prior to formal application. All experiences can be in either coaching, recreation, camping, youth leagues, and/or aiding in public school physical education classes. These experiences can be either self-designed or designed through Physical Education 496 (off-campus teaching practicum), and Physical Education 396 (on-campus teacher aides).

6. Admission to Teacher Education

In addition to the requirements set forth in the Teaching Credential Programs and Department of Secondary Education sections of this catalog, the Department of Physical Education requires candidates to complete the Physical Education Waiver and to submit an extensive application for teaching. In addition, the candidate must be available for a personal evaluation by the Physical Education Teacher Education Committee.

Acceptance into the program allows the candidate to enroll in a two-semester sequence:

First semester: Education-Teacher Education 440F, 440S, 440R (optional), Physical Education 442, 449E.

Second semester: Physical Education 449 I, 449S.

ADAPTED PHYSICAL EDUCATION SPECIALIST CREDENTIAL

Cal State Fullerton has been granted approval to offer an Adapted Physical Education Specialist Credential as a supplementary authorization to the Single Subject Physical Education Credential.

There are two options available. Option I is 18 units of required course work and experience within the field of physical education. This option is offered to applicants with a physical education teaching credential but no prior experience or course work in the adapted field. Option II is an individualized program designed by the physical education teacher education adviser and the candidate. This option is avail-

able for teachers holding a physical education credential and who have already been employed in the adapted field. The amount of prior adapted experience, the types of students worked with, evaluations by supervisors, prior course work, workshops and in-service training help to determine the individual program for each candidate.

Specific requirements for Adapted Physical Education Specialist credential include:

- Physical Ed 260 Movement Anatomy (3)
- Physical Ed 363 Development Adaptations of Atypical (3)
- Physical Ed 364 Motor Development (3)
- Physical Ed 383 Sport Psychology (3)
- Physical Ed 473 Motor Impairment (3)
- Physical Ed 474 Kinesiotherapy (3)

One approved 3 unit upper-division Physical Education course.

The Adapted Physical Education Specialist Credential may be obtained only in conjunction with or in addition to a Single Subject Physical Education Credential.

MASTER OF SCIENCE IN PHYSICAL EDUCATION

The program provides advanced study within the broad discipline of physical education and allows students to elect course work, with adviser approval, in physiology of exercise, motor learning, biomechanics, philosophy of human movement, psychology of human movement, sport sociology, physical education and athletic administration, sport and exercise management, elementary physical education, movement programs for children or adapted physical education.

The Master of Science degree in physical education is intended to meet the needs of students who wish to (1) prepare for admission to doctoral programs; (2) enhance competencies in teaching or athletic administration; and (3) to prepare for a variety of other physical education or sports-related careers.

Admission Requirements

An applicant must meet the university requirements for admission, which include a baccalaureate from an accredited institution, and a grade-point average of at least 2.5 in the last 60 semester units attempted (see section of this catalog on admission of graduates for complete statement and procedures). In addition to the university requirements for admission, acceptance into this program is contingent upon the following: (1) an undergraduate major in physical education with a grade-point average of 3.0 in upper-division physical education course work excluding health, recreation and fieldwork courses; and (2) submission of two letters of recommendation to the graduate studies coordinator.

Students with undergraduate degrees in areas other than physical education may be considered for conditional acceptance to the program. These students must complete 24 units of course work as specified by the graduate studies committee with a minimum grade-point average of 3.0. Course work taken prior to completion of this requirement may not be counted toward the M.S. degree.

Students with grade-point deficiencies may be considered for conditional acceptance to the program. These students must complete additional undergraduate course work as specified by the graduate studies committee. Course work completed to raise grade-point average may not be counted toward the M.S. degree.

Classified Standing

Classified standing requires the development of a study plan (see below) approved by the program adviser, graduate studies committee and dean of graduate studies. *No more than nine* units of graduate work taken before classification may be included on the study plan. Any changes to the study plan after classified standing is granted must be approved in advance, in writing, by the program adviser and the graduate studies committee.

Advancement to Candidacy

Advancement to candidacy is attained by requesting a graduation check in the semester prior to graduation (see class schedule for deadlines) and receiving subsequent approval of the graduate studies adviser on the completion review form (Form B), mailed by the Graduate Studies Office. Students not completing requirements by the graduation date specified on the original graduation check must contact the Graduate Studies Office.

Graduate Advisement

Students should consult with the graduate studies coordinator for general information regarding the program. Upon acceptance to the program, students are assigned a program adviser who assists in developing the study plan. Thesis/project advisers are selected in consultation with the student, program adviser and potential thesis/project chair. Advisement during the summer is provided by the department chair. Students may not register for, or complete, thesis/project studies during the summer without written consent of the thesis/project committee.

Study Plan

A study plan includes a minimum of 30 units of approved graduate work; at least 18 of the total units must be 500-level physical education course work. All study plans must include the following physical education courses: 508; 510; 597 or 598; and two advanced study courses, in addition to the advanced study course (if any) listed for the focus of study. Additional course work may be selected from: (1) 400- and 500-level courses in physical education; and/or (2) graduate or approved upper-division courses from other departments within the university. An open hearing on the thesis/project, prior to undertaking the study, and a final oral examination on the study are required. Students subject to academic probation, or those on academic probation, may not register for Physical Education 499, 550, 597, 598 or 599.

Required:

- Physical Ed 508 Statistical Methods in Physical Education (3)
- Physical Ed 510 Research in Physical Education (3)

Physical Ed 598 Thesis (4) or 597 Project (2)

Advanced study courses:

(See course descriptions for prerequisite requirements.)

Physical Ed 516 Advanced Study of the Philosophical Perspective of Human Movement (3)

Physical Ed 551 Advanced Study in Physiology of Exercise (3)

Physical Ed 552 Advanced Study in Biomechanics (3)

Physical Ed 554 Advanced Study in Human Motor Behavior (3)

Physical Ed 580 Advanced Study in Sport Psychology (3)

Physical Ed 582 Adv Study in Sport Sociology (3)

Elective Courses:

Approved 400/500-level physical education courses.

Approved upper division and graduate courses from other departments.

Graduate Level Writing Requirement

The graduate level writing requirement is met by taking Physical Education 510, Research in Physical Education, and passing the course with a C grade, or better.

Health Education Courses

101 Personal Health (3)

Basic concepts relating to health and well being from a holistic perspective. Mental, emotional, physical and socioenvironmental dimensions of health; sexuality and relationships; nutrition and physical fitness; use and abuse of drugs; health care services and current health problems. (Institutional activities fee required.)

102 Prevention and First Aid (2)

The hazards in environment. The care and prevention of accidents. Standard first aid certification by the American Red Cross granted upon successful completion of requirements.

301 Promotion of Optimal Health (3)

(Same as Nursing 301)

321 Drugs and Society (3)

Habit-forming substances such as alcohol, tobacco, narcotics, hallucinogens, and related drugs, other stimulants and depressants. Social historical, and legal aspects of the drug problem are considered.

342 Stress Management (3)

The nature of stress and the physiological and psychological effects of prolonged stress responses. Includes short and long term somatic and behavioral techniques (exercise, relaxation, meditation, nutrition, time management and goal setting) for management of stress.

350 Nutrition: Vital Link to Better Health (3)

(Same as Nursing 350)

355 Health Education for Teachers (3)

School health, drug education, family living, community health, teaching philosophy, safety education and strategy. For California teaching credential.

Physical Education Courses

Only one section of the following performance courses may be taken in the same semester (e.g., Physical Education 131A,B,C,D are the same activity): Physical Education 100, 102 through 167, 214A, 214B, 246A and 246B.

100 Physical Conditioning (1)

Designed to improve the individual's overall fitness through an understanding and application of the basic principles and techniques of physical conditioning. Emphasizes muscular strength/endurance, cardiorespiratory endurance and flexibility components through various forms of exercise methods. May be repeated for credit.

101 Athletic Conditioning (specific sport) (1)

A conditioning program designed to improve strength, flexibility, agility and cardiovascular conditioning for a specific sport. *Credit/no credit only.* May be repeated for a maximum of four units of credit.

102-167 Performance Courses (1)

102 Jogging; 104 Horseback Riding; 105 Cycling; 110 Swimming; 111 Life Saving; 112 Water Polo; 117 Bowling; 118 Archery; 119 Golf; 120 Gymnastics; 122 Sailing; 125 Rock Climbing; 130 Badminton; 131 Tennis; 132 Racquetball; 142 Children's Games; 144 Aerobic Exercise for Weight Control; 146 Body Building; 150 Wrestling; 151 Aikido; 152 Karate; 154 Self-Defense; 155 Fencing; 160 Baseball; 161 Slow Pitch Softball; 162 Fast Pitch Softball; 164 Volleyball; 165 Soccer; 166 Team Handball; 167 Basketball. Performance courses are primarily instructional. Beginning, intermediate and advanced sections are offered for most performance courses. Students who already possess some proficiency in an activity should consider the course chosen from the standpoint of the level of skill development which may be encountered, standards of proficiency expected and their own ability level. Initial assessment and determination will be made by the course instructor. May be repeated for credit.

170-189 Intercollegiate Sports (2)

Prerequisite: consent of coach. An intercollegiate activity in individual or team sports in an educational setting under the direction of a coach. Physical Education 170 Gymnastics; 171 Golf; 172 Cross Country; 173 Water Polo; 174 Track-Field; 175 Tennis; 176 Wrestling; 177 Fencing; 178 Basketball; 179 Baseball; 180 Soccer; 184 Football; 185 Volleyball; 186 Softball. May be repeated for credit.

190 Team Management (2)

Prerequisites: consent of coach and department chair. Field experience in the management of an intercollegiate sport. May be repeated for maximum of eight units of credit. (Credit/No Credit only)

210 Water Safety Instructor (2)

Prerequisite: Physical Education 111 or equivalent and consent of instructor. Prepares the student to teach swimming and life saving and to supervise aquatic programs. Successful completion will qualify the student for certification as an ARC Water Safety Instructor. (1 hour lecture, 2 hrs activity)

214A Basic Scuba (3)

Prerequisite: Physical Education 114, or ability to swim 400 yards, tread water one minute and swim 25 yards underwater. Skin and scuba diving, theory of diving, safety procedures and ocean environment. Open Water Basic Scuba

Certification earned with successful completion. (1 hour lecture, 2 hours pool activity/ocean dives)

214B Intermediate Scuba (2-3)

prerequisite: Open Water Scuba Certification. Application of scuba diving, including photography, navigation, salvage, game hunting, night diving and others. Advanced Scuba Certification for successful completion. (1 hour lecture, 2 hours pool activity/ocean dives)

246A Basic Hatha Yoga (2)

Basic Yoga postures, breathing and relaxation techniques, and beginning meditation techniques from theoretical and experiential perspectives. Awareness, concentration and breathing patterns that accompany the movements of Hatha Yoga. (1 hour lecture, 2 hours activity) (Same as Religious Studies 246A)

246B Intermediate Hatha Yoga (2)

Prerequisite: Physical Education 246A. An intermediate study of the theoretical and experiential aspects of Hatha Yoga. Intermediate postures, relaxation, breathing, stretching, and concentration techniques are examined. The philosophical and psychological components of Hatha Yoga are discussed. An integrated approach to the body and movement is investigated. (1 hour lecture, 2 hours activity) (Same as Religious Studies 246B)

260 Movement Anatomy (3)

The musculo-skeletal system and its function in human movement. Movement in sports skills and the muscles involved.

300 Principles of Movement (3)

Prerequisite: Physical Education 260. General movement patterns as applied to sport and human movement.

301 Writing Styles in Human Movement Studies (3)

Identifies the various perspectives through which human movement can be studied. Writing styles appropriate for each dimension are emphasized. Meets upper division baccalaureate writing course requirements for physical education majors; however, the course is not applicable toward the major.

303-319 Analysis of Sports (2)

Prerequisites: prior experience in the specific sport(s) to be studied; must demonstrate proficiency. Analysis of specific sport(s), including game play and skill performance. Understanding the nature of the activity. 303 Field Events; 304 Swimming; 305 Golf; 306 Gymnastics; 308 Soccer; 309 Badminton/Racquetball; 312 Tennis; 316 Volleyball; 319 Softball.

320-338 Techniques of Coaching: Selected Sports (2)

To prepare the student to coach specific individual and team sports. Coaching techniques, conditioning of athletes, budget preparation, purchase and care of equipment, scheduling and design and care of facilities. 327 Wrestling; 328 Gymnastics; 330 Softball; 332 Tennis; 334 Baseball; 335 Football; 337 Basketball; 338 Volleyball. *A maximum of 6 units may be applied toward completion of the units required for the major.*

340 Contemporary Movement Environments (3)

The acquisition of physical skills in diverse environments; similarities and differences among age groups. Useful for those considering teaching careers. Required visits to schools and other sites.

341 Analysis of Basic Motor Skills (2)

Identification and analysis of motor skills and patterns basic to all physical activities. Critical evaluation of games and activities as to their effectiveness in promoting basic motor skills in children is emphasized. Recommended for those pursuing careers with children.

349 Measurement and Evaluation in Physical Education (3)

Tests and measurements used in the evaluation of human performance. Analysis and interpretation of data in different movement environments.

350 Physical Activity and Lifelong Well-Being (3)

Prerequisite: one course from Category III.C.I. of General Education and upper division standing. An integration of physiological, psychological and sociological understandings of the human being in relationship to physical activity as a lifelong pursuit. Topics include physical fitness, nutrition, stress reduction, socialization, and individual differences in human behavior. (Not open to physical education majors.)

351 Principles of Conditioning (3)

Prerequisite: Physical Education 260 required; 300 and 352 recommended. Conditioning for those who plan to coach or supervise fitness programs. Circuit training, nutrition, motivation, weight control and kinesiology factors.

352 Physiology of Exercise (3)

Recommended: Biological Science 362. Physiological processes in physical activities and the effect of training upon performance.

352L Physiology of Exercise Laboratory (1)

Prerequisite: prior completion or concurrent enrollment in Physical Education 352. Laboratory techniques in physiology of exercise. (3 hours laboratory)

363 Developmental Adaptations of Atypical (3)

Prerequisites: Physical Education 300, 352, 364, or consent of instructor. The disabled whose unique needs in motor development determine their least restrictive environment in physical activity. Programs of games, sports and exercise in diversified settings; legally mandated regulations.

364 Motor Development (3)

Prerequisites: Physical Education 260 and 352, or consent of instructor. Life span motor development: age, sex, ethnic, cultural and perceptual components; their implications and the main course of action needed in developmental strategies for optimal motor behavior development.

365 Prevention and Care of Athletic Injuries (3)

Prerequisites: upper division standing, Health Education 102 or equivalent, or consent of instructor. For trainers, coaches, physical education instructors, health educators, YMCA and playground personnel, and athletes in the prevention and care of athletic injuries. Practical applications and theory. (2 hours lecture, 2 hours activity)

366 Advanced Prevention and Care of Athletic Injuries (3)

Prerequisites: upper division standing, Physical Education 365, or consent of instructor. Prevention and care of athletic injuries, administrative responsibilities, advanced treatment modalities, preconditioning, and rehabilitation. (2 hours lecture, 2 hours activity)

371 Theory and Principles of Human Motor Learning (3)

Information processing as an explanation of motor learning and motor memory.

371L Theory and Principles of Human Motor Learning Laboratory (1)

Prerequisite: prior completion or concurrent enrollment in Physical Education 371. Laboratory techniques in motor learning studies. (3 hours laboratory)

372 Movement and the Child (3)

Characteristics of the child; physical growth and development; basic mechanical principles underlying efficient movement; and programs for physical needs of children in the elementary school.

373 Movement Concepts (3)

Elements of movement: space, force, time, and flow. Observation, participation, analysis, and synthesis of movement experiences.

380 History of Physical Education and Sport (3)

Historical development of thought and practice in athletics, sport, and physical education from ancient Greeks to the modern period with special emphasis upon the historical role of sport in American life.

381 Human Movement in Cultural Perspective (3)

Prerequisite: one course from Category III.C.I. of General Education and upper division standing. Human movement in the cultural milieu. Historical and contemporary interpretations of the role of play, games, sports, dance and recreation in human life. (Physical Education majors may not double count this course for general education.)

382 Philosophical Perspectives of Human Movement (3)

The meaning and significance of participation in human movement. Human movement relative to personal identity, meditation, aesthetics, values, ethics, and the nature of competition.

383 Sport Psychology (3)

The role of personality and cognitive factors in human movement settings. Selected topics may include: arousal, attribution theory, achievement motivation, anxiety, interventions, attentional styles, aggression, social facilitation, social reinforcement, and imagery.

390 Principles of Sport and Exercise Management (3)

A broad overview of the sport/exercise management enterprise, including school, facility, professional, commercial, industrial, corporate management and specialists in marketing, print/electronic media. Job descriptions, professional preparation and placement opportunities are detailed. Portfolio development.

396 Physical Education Tutorial (1)

Prerequisite: consent of instructor and tutorial adviser. Supervised experience in performance or laboratory situations through tutoring or assisting in instruction. May be repeated for six units of credit. A maximum of three units may be applied toward the major.

407 Sport Consumer Packaging (3)

Prerequisite: Marketing 351 or Physical Education 390 or Communications 361 or consent of instructor. Technical application of promotions, public relations, marketing, contract negotiations, box office and event operations as each applies to packaging sport entertainment. Case methods and applied team project.

409 Sports Fund Raising (3)

Prerequisites: Physical Education 390 or equivalent. Fund

raising theories and principles with application to educational, professional and commercial sports.

430 Applied Sport Psychology (3)

Prerequisites: Physical Education 383 required. Application of principles from sport psychology literature to enhance athletes' and coaches' performance.

442 Teaching Physical Education in the Secondary School (3)

Prerequisite: admission to teacher education. Objectives, methods and materials of teaching physical education K to 12. Required before student teaching. Part of the 12-unit education block and may not be taken separately. (Credit/No Credit only)

449E Externship in Secondary Teaching (3)

To be taken concurrently with Physical Education 442. See description under Division of Teacher Education. (Credit/No Credit only)

449I Internship in Secondary Teaching (10)

See description under Division of Teacher Education. (Credit/No Credit only)

449S Seminar in Secondary Teaching (2)

See description under Division of Teacher Education. (Credit/No Credit only)

451 Sports Medicine (3)

Prerequisites: upper division standing, Physical Education 352 or its equivalent or consent of instructor. Factors (environmental, ergogenic, etc.) which alter the typical physiological response to exercise and training.

452 Physical Performance Testing and Counseling (3)

Prerequisite: Physical Education 352 and 352L required; Physical Education 351 and 451 recommended. Testing and counseling techniques used to assess and develop physical performance.

454 Physical Activity and the Aging Process (3)

Prerequisite: At least two upper division physical education courses or two upper division courses from the Gerontology minor or consent of instructor. Examination of the scientific evidence concerning the relationship between level of physical activity and one's physical, mental and psychological well-being during aging.

461 Biomechanics (3)

Prerequisite: Physical Education 300 or consent of instructor. The application of biomechanics to the analysis of human movement.

471 Motor Control (3)

Prerequisite: Physical Education 371. The application of behavioral and neurological evidence to the control of human movement. Mechanisms subserving movement based on the central and peripheral nervous systems are studied in relation to the control of discrete and sequential movements.

473 Motor Impairment (3)

Prerequisites: Physical Education 363, 364 or consent of instructor. Identification of abnormal motor behavior of the neurologically handicapped. Assessment factors, development of educational and/or therapeutic models of remediation and action strategies. Disorders of neuromotor, convulsive, impulsive and minimal dysfunction syndrome.

474 Kinesiotherapy (3)

Prerequisites: Physical Education 260, 300, 363, or consent of instructor. Kinesiological bases of therapeutic exercise.

The application of kinesiological principles in the selection and design of therapeutic exercise activities and programs for various physical disabilities.

475 Behavioral Dimensions of Motor Performance (3)

Prerequisites: Physical Education 371, 383. An integrated approach to the understanding of psychological processes and behavioral variables which affect the acquisition and performance of motor skills.

482 Sport Sociology (3)

Physical Education 381 or consent of instructor. Sport in society. Sport and social institutions and social processes. Understanding sport as a social phenomenon.

496 Practicum (1-3)

Prerequisites: junior or senior standing and consent of faculty sponsor, field supervisors, departmental coordinator, and department chair. Planning, preparing, coaching, teaching in public school, college, or community physical education or recreation programs. May be repeated for a maximum of six units of credit. Credits not applicable toward major, or fifth year work. (Credit/No Credit only).

499 Independent Study (1-3)

Prerequisites: completion of a minimum of 15 upper division physical education units. Topics based on a study plan prepared in cooperation with a faculty supervisor. Culminates in a paper, project, comprehensive examination or performance. Maximum of three units in any one semester; may be repeated once.

508 Statistical Methods in Physical Education (3)

Prerequisite: graduate status and Physical Education 349 or equivalent. Statistical theory, data collection procedures, techniques for analysis and interpretation of data.

510 Research in Physical Education (3)

Prerequisites: graduate status and Physical Education 508. The fundamental tools of research. Types of research, process of scientific inquiry and critical analysis of research. Topic selection and development of a research proposal.

514 Affective Instruments in Human Movement (3)

Prerequisites: graduate status; Physical Education 349, 383 or 475, or consent of instructor. The evaluation of assessment instruments for affective analysis of values, attitudes and behavior in human movement settings. Development of assessment tools from synthesized information.

516 Advanced Study of the Philosophical Perspective of Human Movement (3)

Prerequisites: graduate status and Physical Education 382 or consent of instructor. Methods of the philosophical process and human movement.

536 Contemporary Problems and Issues in Sport Management (3)

Prerequisite: graduate status and Physical Education 390 or consent of instructor. Historical trends, current issues, and related problems of the sport and exercise industry. Job related decision-making.

550 Internship (3)

Prerequisites: classified status and consent of graduate adviser. On-the-job training experiences supervised by a fully

trained practitioner. Requirements include 10 hours per week of on-the-job training and one hour weekly conference with instructor. Not open to students on, or subject to, academic probation.

551 Advanced Study in Physiology of Exercise (3)

Prerequisite: graduate status and Physical Education 352 or equivalent. Theories of exercise and physiological function.

552 Advanced Study in Biomechanics (3)

Prerequisite: Graduate status and Physical Education 461 or equivalent. Technique analysis of the major skills in sports. In-depth analysis of specific sports using high speed cinematography, instrumentation, computers, electromyography and electrogoniometry.

554 Advanced Study in Human Motor Behavior (3)

Prerequisites: graduate status, Physical Education 371 or consent of instructor. Current issues in motor behavior.

555 Scientific Bases of Training (3)

Prerequisites: graduate status and Physical Education 351, 352, or equivalent, or consent of instructor. Training: the physiological bases for developing the primary fitness components.

556 Environment and Exercise Physiology (3)

Prerequisites: Physical Education 352, 352L, 351, graduate status, and instructor's consent. The interrelationship between the physical environment and the human while exercising under different states of fitness and acclimatization.

580 Advanced Study in Sport Psychology (3)

Prerequisites: graduate status and Physical Education 383, or consent of instructor. Current issues and research in psychology and human movement.

582 Advanced Study in Sport Sociology (3)

Prerequisites: graduate status and Physical Education 482, or consent of instructor. The theories and methods of sociology and the study of the sport phenomenon.

597 Project (1-2)

Prerequisites: classified status, Physical Education 508, 510 and consent of project committee. Directed independent inquiry. Not open to students on, or subject to, academic probation.

598 Thesis (2-4)

Prerequisites: classified status, Physical Education 508, 510 and consent of thesis committee. Student will select and have approved a research proposal, conduct the research, and prepare a formal analysis and report. May be repeated. Not open to students on, or subject to, academic probation.

599 Independent Research (1-3)

Prerequisites: graduate status, Physical Education 508, 510, and consent of the faculty adviser and department chair. May be repeated for maximum of 6 units of credit. Student research in a specific area of human movement studies. Not open to students on, or subject to, academic probation.

Recreation Course

384 Leisure in America: A Social History (3)

(Same as History 384)

Human Services Program

Program Coordinator: Gerald Corey
Program Office: Education Classroom 529

Programs Offered

Bachelor of Science in Human Services
Minor in Human Services

Multiple Subject Credential Waiver Program
Faculty

Soraya Coley, Gerald Corey, Mary Moline,
J. Michael Russell, Jerome Wright

INTRODUCTION

The Bachelor of Science in Human Services is a carefully articulated program providing both the academic and experiential background for the student seeking a career working with people in the varied and expanding field of human services. An application-oriented major, it is based on a synthesis of knowledge from several social sciences, together with methodologies of intervention at the individual, group and community levels. Human services graduates are educated to respond in an informed way to identifiable human service needs in a variety of settings. The program's humanistic orientation and its synthesis of knowledge from many background disciplines, as well as its focus on the development of specific methods and practical skills to apply this knowledge, give it a unique perspective.

The Human Services Program is structured around four interrelated components: theoretical foundations/intervention strategies; client population/cultural diversity; research/evaluation; and skills development/field experience.

BACHELOR OF SCIENCE IN HUMAN SERVICES

The requirements for the major consist of 54 units. The required core curriculum consists of 36 units (in the above four areas), plus 18-units of adviser approved courses related to one's anticipated professional specialization.

Majors must achieve a grade of C or better in all courses included in the core curriculum and in the advisement track. It is the student's responsibility to consult an adviser on the human services faculty at least once during each of her/his first two semesters on campus to develop a study plan identifying courses for the advisement track.

Community College Transfer Students: Community college transfer students may apply a maximum of 12 units of course work in human services and related fields towards the total of 54 units. Transfer of any units must be approved by the student's adviser and the Program Coordinator.

Prerequisites: Physical Education 390 or equivalent. Fund

Courses required for the major total 54 units. The suggested sequence is as follows:

A. Required Core Curriculum (36 units)

Sophomore Year:

Human Services 201 Introduction to the Human Services (3)
Psychology 203 Elementary Statistics
or Soc 303 Statistics of the Social Sciences (3)

Note: Human Services 300, Character and Conflict, is required in the paraprofessional counseling advisement track and should be taken early in the program.

Junior Year: First Semester

Human Services/Counseling 380 Theories and Techniques of Counseling (3)
Afro-Ethnic/Human Services 311 Intracultural Socialization Patterns (3)
Psychology 361 Developmental Psychology
or Child 312 Human Growth and Development (3)
Psychology 341 Abnormal Psychology
or Sociology 466 Deviant Behavior (3)

Junior Year: Second Semester

Human Services 396 Practicum Seminar (2)
and Human Services 396L Practicum* (1)
Sociology 305 Techniques of Social Welfare (3)
Advisement Track Course(s)

Senior Year: First Semester

Human Services 385 Program Design and Proposal Writing (3)
Human Services 495 Fieldwork Seminar (2)
and Human Services 495L Fieldwork* (1)
Advisement Track Course(s)

Senior Year: Second Semester

Human Services 470 Evaluation of Human Services Programs (3)
Human Services 496 Internship* (3)
Advisement Track Course(s)

*The practicum/fieldwork/internship courses (Human Services 396 and 396L, 495 and 495L, and 496) must be taken in sequence. Only one fieldwork course work may be taken in a given semester.

B. Required Advisement Track (18 units)

In addition to the 36-unit core, the human services degree program requires each student to select, in consultation with an adviser, an 18-unit advisement track in the area of her/his anticipated professional specialization. Examples of advisement tracks include: administration, gerontology, multiple subject (elementary) teacher education, paraprofessional counseling (individual and group), social rehabilitation, social work, or an individual program worked out with an adviser. Students are expected to consult with an adviser during their first semester in the Human Services Program to develop a study plan.

Note: Human Services 300, Character and Conflict, may be used as an elective in advisement tracks; consult an adviser for further information.

MINOR IN HUMAN SERVICES

The minor in Human Services, consisting of 21 units, may be of interest to students preparing for careers in the helping professions, as well as students with a personal interest in this field. The minor provides

a structured selection of courses offered by the Program which can complement other majors and minors by providing practical applications of theory, foundations, self-exploration and supervised fieldwork in a human services setting.

Required Foundation Courses: 9 units

Human Services 201 Introduction to Human Services (3)
Human Services 311 Intracultural Socialization Patterns (3)
Human Services 380 Theories and Techniques of Counseling (3)

Electives: Select 3-9 units from the following:

Human Services 300 Character and Conflict (3)
Human Services 316 Group Process and Membership (1-3)
Human Services 317 Special Group Experiences (1-3)
Human Services 385 Program Design and Proposal Writing (3)
Human Services 400 Ethical and Professional Issues in Human Services (3)
Human Services 410 Crisis Interviewing (3)
Human Services 470 Evaluation of Human Services Programs (3)
Human Services 480 Case Analysis and Intervention Techniques (3)

Fieldwork: Select 3 to 9 units from the following:

Human Services 396/396L Practicum Seminar (2) and Practicum (1)
Human Services 495/495L Fieldwork Seminar (2) and Fieldwork (1)
Human Services 490 Practicum in Group Leadership (3)
Human Services 496 Internship (3)

MULTIPLE SUBJECT CREDENTIAL WAIVER

A carefully selected sequence of courses taken in conjunction with the human services major has been approved by the State of California as a waiver for the General Knowledge Core Battery portion of the National Teachers' Examination. One requirement for a Multiple Subjects (Elementary) Teaching Credential is completion of a waiver program or passing scores on the (NTE) General Knowledge Core Battery. Contact the Credential Preparation Center for further information.

Human Services Courses

201 Introduction to the Human Services (3)

The origin and scope of human services including theoretical frameworks, the functions and activities of human services organizations, and the roles and related skills of human services workers.

300 Character and Conflict (3)

Prerequisite: consent of instructor at first class meeting. An experiential, theme-oriented class exploring life choices in the struggle for personal autonomy. Themes include: body image, sex roles, love, sexuality, intimacy, marriage, alternative life-styles, loneliness, death, meaning and values. Grade option 2.

- 311 Intracultural Socialization Patterns (3)**
(Same as Afro-Ethnic Studies 311)
- 316 Group Process and Membership (1-3)**
(Same as Counseling 316)
- 317 Special Group Experiences (1-3)**
(Same as Counseling 317)
- 380 Theories and Techniques of Counseling (3)**
Prerequisite: upper division standing or consent of instructor. Survey of contemporary theories and techniques of counseling. The counseling process, comparison of various theoretical approaches, introduction to professional and ethical issues in the helping profession of counseling. (Same as Counseling 380)
- 385 Program Design and Proposal Writing (3)**
Prerequisites: Human Services 201; 396 and 396L, or consent of instructor. Techniques of program design, budgeting and staffing of human service programs; proposal writing and fund development methods; survey of needs assessment procedures.
- 396 Practicum Seminar (2)**
Prerequisite: Human Services 201. Corequisite: Human Services 396L. Functions and structure of human services agencies; interrelationships with community services; the role of the human services worker; ethical, legal and professional issues.
- 396L Practicum (1)**
Prerequisite: Human Services 201. Corequisite: Human Services 396. Field placement in one or more human service agencies for a minimum of eight hours per week. Grade option 2.
- 400 Ethical and Professional Issues in Human Services (3)**
Prerequisites: Human Services 380; 396 and 396L; or Philosophy 310, or consent of instructor. A survey of ethical, legal and professional issues facing the human services worker. Designed to teach a process of ethical decision-making and to increase awareness of the complexities in practice. (Same as Philosophy 400)
- 410 Crisis Interviewing (3)**
Prerequisite: HUSER 380 or equivalent. Examines the theories and techniques of short-term crisis intervention and sub-

sequent referral procedures. Topics include suicide, battering, rape, death, and dying.

- 470 Evaluation of Human Services Program (3)**
Prerequisites: Human Services 385 and an elementary social science statistics course. Making program objectives measurable; determining appropriate methodology and techniques to evaluate effectiveness, efficiency and process variables; practical problems of program evaluation.
- 480 Case Analysis and Intervention Techniques (3)**
Prerequisites: Human Services 380, 396 and 396L; Psychology 341. Techniques of counseling; appropriateness in the utilization of theoretical modalities; case writing; various counseling intervention methods suitable for a culturally diverse population. Role-playing and videotape observations of actual counseling encounters. (Same as Counseling 480)
- 490 Practicum in Group Leadership (3)**
Prerequisites: Human Services 300, 380 and consent of instructor. Supervised experience as a group leader. Approaches and techniques of group leadership. May be used as a substitute for either 495/495L or 496. May be repeated once for credit.
- 495 Fieldwork Seminar (2)**
Prerequisites: Human Services 396 and 396L. Corequisite: Human Services 495L. Classroom analysis of agency experience focusing on skills and techniques of human service workers and organizational analysis.
- 495L Fieldwork (1)**
Prerequisites: Human Services 396 and 396L. Corequisite: Human Services 495. Supervised fieldwork in one or more human service agencies for a minimum of eight hours per week. Grade option 2.
- 496 Internship (3)**
Prerequisites: Human Services 495 and 495L and at least two courses in approved specialization. Supervised internship in a community service agency in area of specialization. A minimum of eight hours of supervised fieldwork per week.
- 499 Independent Study (1-3)**
Prerequisites: approval of coordinator, consent of instructor, upper-division status. Individual research project, either library or field, under the direction of a faculty member. May be repeated for credit. Only three units per semester.

Military Science Program (Army ROTC)

Coordinator: Major Ken Sadeckas

Assistant Coordinators: Captain Chris Stoecklin

Captain Marty McKinley

Operations Sergeant: Sergeant First Class

Harold Kammermeyer, Jr. III

Administrative Sergeant: Staff Sergeant

Robin D. Cook

Department Office: Education Classroom 128

Program Offered

Minor in Military Science

INTRODUCTION

Military Science is the study of the causative factors and the tactical principles of warfare. ROTC provides an added dimension to the university by offering the student applied leadership and management education and experience found in few other college courses. Full-time enrolled students in all academic disciplines are eligible to enroll as cadets in accordance with university and Army policy. Three-year and two-year merit scholarships are available and awarded on a competitive basis. Military Science courses are accredited and open to the academic community. Upon successful completion of all requirements cadets are commissioned as second lieutenants and serve either in a full-time active duty capacity or part time in The Army Reserve or National Guard, this depending on the desires of the student and the needs of the Army.

Four-Year Program

This program is comprised of a "Basic Course" and an "Advanced Course." The "Basic Course" is normally taken during the freshman and sophomore years and is comprised of courses from many disciplines while the "Advanced Course" is normally taken during the junior and senior years and concentrates on military subjects. "Basic Course" participation is done on a voluntary basis without obligation, however, upon entry into the "Advanced Course," cadets are required to execute a contract with the Department of The Army agreeing to complete the ROTC program and accept a commission as a second lieutenant and serve on either a full-time or part-time basis. For non-scholarship cadets, there is no active-duty obligation beyond training, however, they will have a six-year active reserve obligation. "Advanced Course" cadets will receive up to \$1,000 a year along with free uniforms and books for all military science courses.

Two-Year Program

This program is calculated to offer participation to those students who have at least four semesters of work remaining on campus as either an undergraduate, graduate or combination thereof, who for whatever reason, failed to initiate participation earlier. These students must attend either the ROTC Basic Camp or an on-campus "Compression" program to gain eligibility for "Advanced Course" enrollment. Upon successful completion of either training program, the student is then eligible for contracting as an "Advanced Course" cadet under the same benefits, requirements and guidelines as the four-year students. Honorably discharged veterans and Reserve and National Guard enlisted personnel are eligible for enrollment in the "Advanced Course" without any additional training upon gaining sophomore academic standing.

MINOR IN MILITARY SCIENCE

The Military Science Minor is comprised of a combination of courses from many disciplines totalling 24 units. Students interested in this program should seek additional information from the Military Science office.

GENERAL REQUIREMENTS

All enrolled students (cadets) will take one course each semester from the following list of courses, as well as participating in leadership laboratories conducted during one weekend each month. The duration of leadership laboratories varies from one to four days. Additionally "Advanced Course" cadets will attend a six-week advanced summer camp prior to commissioning. Nursing students will participate in the same academic program; however, they will attend an alternate advanced summer camp specifically for nursing students.

All four-year cadets will take the following in their freshman year:

Geography 281 Map Reading and Orienteering (2)
Psychology 210 Psychology of Military
Leadership (3)

All four-year cadets will take the following in their sophomore year:

History 491 American Military Experience (3)
Poli Sci 352 American Foreign Policy (3)

All cadets will take the following in their junior year:

Military Science 101 Military Instruction
Techniques and Leadership Principles (2)
Military Science 102 Theory and Dynamics of
Military Organizations (2)

All cadets will take the following in their senior year:

Criminal Justice 325 Military Judicial System (3)
Military Science 301 Ethics for the Military
Professional (3)
Military Science 201A Leadership Laboratory (1)
Military Science 201B Leadership Laboratory (1)

Military Science Courses

101 Military Instruction Techniques and Leadership Principles (2)

Techniques of military instruction enhanced by practical exercises and leadership principles are examined through the use of case studies, both enriched by leadership laboratories.

102 Theory and Dynamics of Military Organizations (2)

Prerequisite: Military Science 101 or consent of the instructor. Theory in planning and organizing the deployment of small military units.

201A Leadership Laboratory (1)

Application to military organization and management. Development of objectives, plans and proper execution of military skills training exercises.

201B Leadership Laboratory (1)

Prerequisite: Military Science 201A. Application of the concepts of military organization, staffing and training management. Advanced training in the proper execution of military training exercises. Study enhanced by a one-week encampment at Fort Ord.

301 Ethics for the Military Professional (3)

Ethical dimensions of professional decision making, leadership, crisis-management, the responsibilities of officers and officials, and comparisons between military and civilian roles.

Department of Nursing

Department Chair: Vera Robinson
Department Office: Education Classroom 125A

Program Offered

Bachelor of Science in Nursing

Faculty

Arlene Gray, Linda McKeever, Sandra Schwartz,
Barbara Talento, Vera Robinson

INTRODUCTION

The major in nursing is designed to provide registered nurses with knowledge, skills and attitudes necessary for the performance of the professional nursing role and characteristic of the generally educated person. The program prepares a nursing generalist who can apply the humanistic approach within a framework of scientific and professional accountability and who can function independently in a variety of health settings. The program provides students with the necessary foundation for graduate education and specialization and promotes and fosters commitment to lifelong learning for personal and professional growth.

BACHELOR OF SCIENCE IN NURSING

The Department of Nursing offers to the registered nurse with an associate degree in nursing (or its equivalent) an upper-division program leading to a bachelor of science degree with a major in nursing. Graduates are eligible for certification as public health nurses in the State of California.

The program is accredited by the National League for Nursing.

Admission Requirements

1. Meet requirements for admission to the university as a transfer student.
2. Completion of an associate degree in nursing or its equivalent.
3. Current licensure as a registered nurse in California.
4. Completion of one college level course in each of the following: anatomy-physiology (with laboratory), chemistry (with laboratory), microbiology, psychology, and sociology or anthropology. A minimum grade of C must be attained in each course.
5. Completion of one year of satisfactory work experience as a registered nurse is recommended.

Admission Procedures

Students are accepted into the nursing program twice each year in the fall and spring semesters.

1. Submit a university application and an official transcript of all previous college work to the Office of Admissions and Records.
2. Submit a nursing application form to the Department of Nursing office with a transcript copy of all previous college work and two letters of reference from previous employers or instructors.
3. Group counseling sessions are available each semester for prospective students.
4. Entry tests will be required prior to and during the first clinical nursing course. Results will be used for counseling purposes. Exit tests will also be required. A fee is charged.

Departmental Regulations

1. All required nursing and support courses must be taken in sequence. Check each nursing course for prerequisites and corequisites. Students may enroll in only one clinical course (Nursing 305L, 355L, 402L and 452L) per semester.
2. Students must apply for the clinical nursing courses each semester prior to enrollment in the class. (November 1 deadline for spring semester and April 1 for fall semester.) Enrollment in the seminar and clinical sections is limited to 10-15 students.
3. Students must maintain a cumulative 2.0 grade-point average on all units attempted and attain a minimum grade of C in all nursing and support courses.
4. The student who earns less than a grade of C in nursing or support courses must repeat that course prior to being admitted into the next nursing course in sequence. A nursing or support course may be repeated only one time and requires departmental consent.
5. Students must have malpractice insurance and access to transportation in order to be admitted into clinical courses.
6. Students are required to make an appointment with advisers at least once each semester.
7. Professional standards are expected to be maintained. A student who demonstrates unprofessional behavior or behavior which indicates unsafe practice may be denied progression or may be dismissed from the program. Refer to department for complete progression and retention policy as stated in the Student Handbook.
8. Any student with a lapse of five years between clinical nursing courses, must take a placement test and remediation, if necessary, before admission to the subsequent clinical nursing courses.

Scholarships, Awards, Financial Aid

1. Financial aid and community scholarships are available.
2. Outstanding senior student and W. J. Traber Humanism Award are given to graduating seniors.

Requirements for the Degree

1. The total number of units required for the Bachelor of Science in Nursing is 128. This consists of a specific combination of prerequisites, general education, nursing and elective courses.
2. The following courses are required for the nursing major: Nursing 305, 305L, 307, 320, 355, 355L, 357, 400, 400L, 402, 402L, 450, 450L, 452, and 452L (36 units); Chemistry 300 and 300L (4 units); Biol Science 425 (3 units); and upper-division statistics course (3 units). Total: 46 units.
3. All students must complete the university upper-division baccalaureate writing requirement, which includes the Examination in Writing Proficiency. Nursing 305 is approved as the upper-division writing course.

Baccalaureate Plan of Study

Students may attend full time or part time. Courses must be taken in semester sequence.

<i>Junior Year: First Semester</i>	<i>Units</i>
Nursing 305/L Professional Nursing I (Laboratory/Clinical)*	3, 2
Nursing 307 Health Promotion: Parent-Child Nursing	3
Chem 300/L Organic and Biochemistry (Lab)	3, 1
General Education/Electives	3

<i>Junior Year: Second Semester</i>	
Nursing 320 Process of Teaching in Nursing	2
Nursing 355/L Professional Nursing II (Laboratory/Clinical)*	3, 2
Nursing 357 Health Promotion: Adult-Aged Nursing	3
Biological Sci 425 Pathobiology	3
General Education/electives	3

<i>Senior Year: First Semester</i>	
Nursing 400/L Professional Dimensions of Nursing	3
Nursing 402/L Community Health Nursing (Clinical)*	2, 4
Statistics (upper division)	3
General Education/electives	3

<i>Senior Year: Second Semester</i>	
Nursing 450/L Nursing Research	3
Nursing 452/L Leadership/Management in Professional Nursing (Clinical)*	2, 4
General education/electives	6

*Clinical courses require malpractice insurance and access to transportation.

Nursing Courses

Note: All nursing courses require (1) admission to the university as a nursing major, (2) current California R.N. licensure, (3) junior standing and (4) consent of instructor.

301 Promotion of Optimal Health (3)

Prerequisites: One course from category III.A.2 of general education and upper division standing.

Advanced health concepts and practices. Common health problems, causative factors and methods for prevention. Preventive and promotive health concepts and practices explored, integrating physiological, psychosocial, spiritual, cultural, and environmental factors which inhibit or facilitate optimal health. For non-nursing majors. (Same as Health 301)

305 Professional Nursing I (3)

Corequisite: Nursing 305L. Focuses on professional nursing role, nursing process, holistic man, selected bio-psychosocial and nursing theories. Concepts and theories of adaptation and communication, with skills in therapeutic and written communication emphasized. Meets upper-division writing requirement.

305L Professional Nursing I: Laboratory/Clinical (2)

Corequisite: Nursing 305. Application of nursing process utilizing adaptation framework and concepts presented in Nursing 305 with clients in community settings and simulations on campus. Emphasis on psycho-social assessment of clients and problem-solving. Examination of student's personal values as aid to professional nursing role socialization. (Lab/Clinical 6 hours)

307 Health Promotion: Parent-Child Nursing (3)

Theories and issues important in parent-child nursing. Specific nursing interventions useful in preventing maladaptation relative to developmental change. Topics explored: genetic counseling, maternal-child bonding, sexuality, adaptation patterns from birth through young adulthood, cultural determinants.

320 The Process of Teaching in Nursing (2)

Prerequisite: Nursing 305 and 305L. Corequisite: prior to or concurrent with Nursing 355. Nursing knowledge and skills in clinical teaching situations with individuals, families and groups. Content includes theories and principles of learning, teaching strategies and methodologies, teaching resources and evaluation of instruction.

350 Nutrition: Vital Link to Better Health (3)

Prerequisites: Chemistry 111 or comparable course. Concepts of nutrition as they relate to nutritional needs, practices and problems throughout the life cycle. Emphasis on nutritional counseling and education of individuals/groups toward health promotion and disease prevention.

355 Professional Nursing II (3)

Prerequisites: Nursing 305, 305L, 307; Chemistry 300 and 300L. Corequisite: Nursing 320, 355L, 357, Biological Science 425. Focuses on physical assessment, identification of stressors and health education. Techniques in health history-taking and physical examination. Specific common stressors are analyzed that influence adaptation and optimal health.

355L Professional Nursing II: Laboratory/Clinical (2)

Prerequisites: Nursing 305, 305L, 307; Chemistry 300 and 300L. Corequisite: Nursing 320, 355; Biological Science

425, Nursing 357. On-campus supervised practice of physical assessment and supervised nursing practice with clients in ambulatory and in-patient care settings. Students perform total health assessment, utilize decision-making, teaching and evaluation skills. (Lab/Clinical 6 hours)

357 Health Promotion: Adult-Aged Nursing (3)

Prerequisite: Nursing 307. Developmental theories of adulthood and the aging process. Selected topics (body image, sexuality, family, retirement, anger, depression, death and dying) examined with emphasis on adaptation to developmental and situational stressors and nursing interventions.

360 Promoting Health of the Elderly (3)

Characteristics of aging and concerns of the elderly: multidimensional assessment and selected therapeutic interventions useful in promoting health of the elderly. Evaluations of health practices and determination of appropriate referrals.

400 Professional Dimensions of Nursing (2)

Prerequisites: Nursing 355L, 357; Chemistry 300 and 300L; Biological Science 425 and 425L. Corequisite: Nursing 400L. Analysis of social trends and issues affecting nursing and health care. Bioethics, health care legislation and roles of professional organizations are examined. Nursing leadership tasks are explored in relation to group process, values clarification and ethical decision-making.

400L Professional Dimensions of Nursing: Laboratory (1)

Prerequisites: Nursing 355, 355L, 357; Chemistry 300 and 300L; Biological Science 425 and 425L. Corequisite: Nursing 400. Understanding of group process theory by assuming leader, member and participant observer roles. Actual and potential stressors are explored and communication patterns analyzed. Includes observation of group process in health planning committees, professional organizations and community health advocacy groups.

402 Community Health Nursing (2)

Prerequisites: Nursing 355L, 357. Corequisite: Nursing 402L. Nursing 400 and 400L must be taken prior to or concurrently. Theories of community health and nursing synthesized to help students facilitate the adaptation process of clients, families and communities to attain and maintain optimal health. Emphasis on family health care, assessment of community health needs, advocacy, collaborative role.

402L Community Health Nursing: Clinical (4)

Prerequisites: Nursing 355L, 357. Corequisite: Nursing 402. Application of community health nursing concepts to family health care in the community milieu. Students collaborate with families and others and use community resources to promote optimal family health and improve health status. (Clinical 12 hours)

410 Occupational Health and Safety (3)

Prerequisite: Upper division/senior level standing. Principles of worker health and safety with emphasis on developing a comprehensive occupational health and safety program within general and health care industries; roles and interaction between nurse, other health team members and management; legislation and cost management.

450 Nursing Research (2)

Prerequisites: Nursing 400, 400L, 402, 402L. Corequisite: Nursing 450L. Historical, philosophical, and ethical aspects of nursing research. Relationship between nursing research and professional accountability. Principles and methods of

research process with emphasis on evaluating research for use in leadership and professional role.

450L Nursing Research: Laboratory (1)

Prerequisites: Nursing 400, 400L, 402, 402L. Corequisite: Nursing 450. Evaluation of specific nursing studies to determine significance and applicability to nursing practice. Students have opportunities to apply selected research concepts as they develop a research proposal.

452 Leadership/Management in Professional Nursing (2)

Prerequisites: Nursing 400, 400L, 402, 402L. Corequisite: Nursing 452L. Nursing 450 and 450L must be taken prior to or concurrently. Theories of leadership/management; concepts of power, motivation, decision-making, change and management skills related to health care system and pro-

fessional nursing role. Barriers and issues relative to change, conflict resolution and change strategies.

452L Leadership/Management in Professional Nursing: Clinical (4)

Prerequisites: Nursing 400, 400L, 402, 402L. Corequisite: Nursing 452. Nursing 450 and 450L must be taken prior to or concurrently. Application of leadership/management theories and skills in student-selected and faculty approved clinical settings. Students synthesize professional nursing role through individualized learning contract. (Clinical 12 hours).

499 Independent Study in Nursing (1-3)

Prerequisites: senior standing in nursing and/or consent of instructor. Individually supervised studies and/or projects.

Department of Reading

Department Chair: Norma Inabinette
Department Office Education Classroom 544

Programs Offered

Master of Science in Education

Concentration in Reading

Reading Specialist Credential

Faculty

Thomas Bean, Ashley Bishop, Norma Inabinette,
Ruth May, JoAnn Carter-Wells

UNDERGRADUATE READING SKILL DEVELOPMENT SKILLS COURSES

Lower division courses in reading (Reading 101, 103 minicourses, 201 and 202) and an upper-division course (Reading 320) are designed to assist students in developing the critical and creative reading skills required for efficient university learning.

READING SPECIALIST CREDENTIAL

The Commission for Teacher Preparation and Licensing has granted approval to the Reading Department to offer a reading specialist credential program.

An examination of the course requirements will show overlapping between the reading specialist credential and the Master of Science in Education, concentration in Reading degree. By careful planning with a graduate adviser in reading, the student can virtually complete the requirements for both at the same time with 34 units of study.

Program pre-entry requirements for the Reading Specialist Credential are as follows:

1. *Academic Preparation in Reading:* Prior to entering this approved program the students will present evidence (transcripts) demonstrating satisfactory completion of one of the following:
 - A. Ryan Act reading methods courses, such as EDELM 433 or EDSEC 440R, or
 - B. Teaching of reading examination adopted by the Commission for Teacher Preparation and Licensing (National Teacher Examination No. 20) or
 - C. Reading 480, The Teaching of Reading (4 units) or the departmental exam offered in lieu of the course or
 - D. Entering students who received teacher training from out-of-state institutions since September 1973, may submit a transcript and catalog course description and petition to have an undergraduate course accepted in lieu of the above.

2. Teaching experience. Prior to entering this approved program, both in-state and out-of-state students will present evidence in the form of letters of verification from the district office demonstrating satisfactory completion of one of the following:

- A. Two or more years of successful experience teaching reading for at least one instructional period per day in public and/or private elementary and/or secondary schools, this experience to include at least a two-grade span, or
- B. Two or more years of successful classroom teaching experience, this experience to include at least a two-grade span, or
- C. Two hundred fifty or more days of successful and extensive substitute teaching experience, this experience to include at least a two-grade span, or
- D. Successful student teaching experience, at least part of which involved the teaching of reading, as well as at least 45 hours of successful experience as either a teaching aide in reading or a reading tutor, this experience to include at least a two-grade span. Students whose teaching experience covers less than a two-grade span may complete this requirement by tutoring students in Reading 581 at a grade level at least two years different from previous experience.

Assessment of experienced reading specialist.

Prior to entering this program, the applicant who has served as a school or district reading specialist will have his/her experience assessed and a program will be planned around the needs revealed by this assessment.

Program Description	Units
Reading 507 Current Trends in Secondary and College Reading Programs	3
Reading 508 Teaching Reading in Today's Elementary School	3
Reading 516 Etiology of Reading Difficulties	3
Reading 517 Educational Testing and Reading Instruction	3
Reading 581 Analysis of Reading Difficulties	4
Reading 582I Analysis of Reading Practices; Assessment of Reading Specialist Competencies	1
Reading 585 Professional Development in Reading	3
Reading 584 Linguistics and Reading	4
Electives and/or support courses	7
Total	31

MASTER OF SCIENCE IN EDUCATION (READING)

The program is designed to help qualified individuals gain the technical knowledge and scholarship requisite to becoming reading specialists. This professional program is based on and combined with sound preparation in the liberal arts and sciences. The curriculum proposes an interdisciplinary approach to the preparation of the professional specialist in reading.

Admission to Graduate Standing: Conditionally Classified

University requirements include: a baccalaureate from an accredited institution and a grade-point average of at least 2.5 in the last 60 semester units attempted (see "Graduate Admissions" section of this catalog for complete statement and procedures). In addition, an applicant must have an approved major, complete an application to the reading program and confer with the graduate program adviser to discuss the prerequisites for attaining classified standing.

Graduate Standing: Classified

A student who meets the admission requirements and the following requirements may be granted classified graduate standing upon the development of an approved study plan: successful teaching experience or other approved experience; a grade-point average of 2.5 or better in academic and related work; sufficient background in reading; a satisfactory interview; and four references from school administrators, school supervisors or professors.

Study Plan

The final adviser-approved program of course work for the degree must include:

	Units
Core course work	9
Reading 510 Research Design and Analysis (3)	
Ed Elm 536 Curriculum Theory and Development (3)	
Reading 516 Etiology of Reading Difficulties (3)	
Courses for the concentration in reading	20
Reading 507 Current Trends in Secondary and College Reading Programs (3)	
Reading 508 Teaching Reading in Today's Elementary School (3)	
Reading 517 Educational Testing and Reading Instruction (3)	
Reading 520 Computers in Reading (3)	
Reading 581 Analysis of Reading Difficulties (4)	
Reading 584 Linguistics and Reading (4)	
Culminating Experience	1
Reading 595 Advanced Studies (includes comprehensive examination) (1) or	
Reading 597 Project (1) or Reading 598 Thesis (1)	
Total	30

For advisement and further information, consult the program graduate adviser.

Reading Courses

101 Reading Development (1)

Designed to improve reading efficiency through a combination of critical reading and pacing activities. Adaptations are made within the course to provide for individual needs. May be repeated for credit for a maximum of 3 units.

103 Critical Reading (1)

Emphasis on interpretive, analytical and evaluative abilities required for academic reading. Includes drawing inferences, seeing relationships, detecting fact/opinion, author's bias, and making critical judgements.

105 Reading Speed and Efficiency (1)

Five week course to develop students flexible rate of reading and ability to efficiently comprehend and retain text information. Includes pretests, completion of practice exercises, and post evaluation.

201 Academic Reading: Analyses and Strategies (3)

Analysis of reading and learning processes, reading interpretation and critical thinking strategies as applied to all types of academic reading, emphasis on integration and synthesis of academic information.

202 Vocabulary Cognition and Reading Comprehension (3)

Study and analysis of general and academic vocabularies and their influence on reading comprehension and communication. Emphasis on language knowledge and the development of contextual analysis and word association processes in reading communication.

320 Power Reading: Rate and Critical Interpretation (3)

Reading power developed through flexible rate and application of critical thought to written discourse. Emphasis on systematic processes for logically analyzing and criticizing ideas as represented in selected readings.

480 The Teaching of Reading (4)

Prerequisite: consent of instructor. Curriculum and methods in the teaching of reading in the elementary and secondary schools.

507 Current Trends in Secondary and College Reading Programs (3)

Prerequisite: consent of instructor or graduate adviser. Current trends in the teaching of secondary and college reading improvement with emphasis on materials, organization and methods of instruction.

508 Teaching Reading in Today's Elementary School (3)

Prerequisite: consent of graduate adviser or instructor. Current trends in the teaching of elementary reading, the teacher as a decision-maker and the reading process for all learners.

510 Research Design and Analysis (3)

(Same as EDSEC 510)

516 Etiology of Reading Difficulties (3)

Prerequisite: consent of instructor or graduate adviser. Studies of the physical, social, psychological, educational and instructional factors underlying reading disabilities in children, adolescents, and young adults. Course includes an indepth case study of a problem reader.

517 Educational Testing and Reading Instruction (3)

Prerequisite: consent of graduate adviser or instructor. Survey of individual and group achievement batteries, reading

skills measures, intelligence tests, and special ability instruments—their selection, utilization and evaluation for classrooms and clinics includes extensive comparative testing of a child.

520 Computers in Reading (3)

Prerequisites: Consent of instructor or graduate adviser and READ 505 or 508. Exploration of the impact of computers on reading; investigation of the strengths/limitations and applications of varying types of software for reading development. Clinic component included.

581 Analysis of Reading Difficulties (4)

Prerequisite: consent of graduate adviser in reading or instructor. Analysis and diagnosis of reading difficulties. Techniques and methods of prevention and treatment. Individual remediation of student. Primary through secondary.

582 Analysis of Reading Practices: Contemporary Issues (1)

Current issues in reading instruction, such as the exceptional child in reading, textbook evaluation procedures and comparative reading. Can be repeated for credit with different content.

582I Analysis of Reading Practices: Assessment of Reading Specialist Competencies (1)

Prerequisite: consent of instructor or graduate adviser. Assessment of competencies of students entering the Reading program in preparation for the Reading Specialist Credential.

584 Linguistics and Reading (4)

Prerequisite: consent of graduate adviser or instructor. A study of linguistics and its influence on reading materials and instruction. An analysis of trends in linguistics as they relate to the teaching of reading.

585 Professional Development in Reading (3)

Prerequisite: consent of instructor or graduate adviser. Fieldwork in evaluation and development of reading programs. Training in inservice education and communication with teachers, parents, consultants, and administrators. Includes writing for publication and grant purposes.

595 Advanced Studies (1-3)

Prerequisite: consent of instructor or graduate adviser. Graduate seminars in such areas as behavior, teaching strategies, educational technology, program development, communication theory and interpersonal relations.

597 Project (1-3)

Prerequisite: consent of instructor or graduate adviser. Individual research on an empirical project, with conferences with the instructor, culminating in a project.

598 Thesis (1-3)

Prerequisite: consent of instructor or graduate adviser. Individual research with conferences with the instructor, culminating in a thesis.

599 Independent Graduate Research (1-3)

Prerequisite: consent of instructor or graduate adviser. Independent inquiry for qualified graduate students.

Department of Secondary Education

Chair: Nancy Reckinger

Department Office: Education Classroom 379

Program Offered

Basic Teacher Credential Program

Single Subject Credential

Faculty

Thomas Bean (Reading Education), Gloria Castellanos (Mathematics Education), James Cusick (Secondary Education), Kay Gjerdingen (Music Education), Paul Kane, (Secondary Education), William Leonard (Mathematics Education), Emmet Long (Speech Education), Edith McCullough (Business Education), Eugene McGarry (Secondary Education), Sallie Mitchell (Theatre Education), David Pagni (Mathematics Education), Albert Porter (Art Education), Nancy Reckinger (Secondary Education), Morris Sica, H. (Secondary Education), Eric Streitberger (Science Education), Dennis Tierney (Secondary Education), Marjorie Tussing (Foreign Languages Education), John White (English Education), Charles Williams (Science and Secondary Education), Jon Zimmermann (Foreign Languages Education)

Single Subject Credentials and Waiver Programs

Although a person seeking a Single Subject Credential may complete any academic major, the person would most likely decide to complete the degree major closest to the subject field he or she wishes to be authorized to teach. CSUF offers the Single Subject credential in the following State-authorized subject fields:

- Art
- Business Education
- English (English, Speech, Theatre)
- French
- German
- Government (Political Science)
- History
- Life Science (Biology)
- Mathematics
- Music
- Physical Education
- Physical Sciences (Chemistry, Geology and Physics)
- Social Sciences (Anthropology, American Studies, Economics, Geography, Chicano Studies, History, Afro-Ethnic Studies, Psychology and Sociology) Spanish

Single Subject (Secondary) Professional Preparation Program

Because schools exist in a culturally pluralistic society, candidates in this program must complete training in multicultural education through the course Ed Sec 440M (Multicultural Education in Public Schools) by the end of the professional preparation program.

The single subject professional preparation program is a two-semester sequence as follows:

First Semester

Ed Sec 440F Supervised Fieldwork in Secondary Schools (2)

Ed Sec 440R Instruction in Reading for Secondary School Teaching (3) (Optional for candidates in art, music and physical education)

Ed Sec 440S Foundations of Secondary School Teaching (4)

Ed Sec 442 Teaching—in the Secondary School (3) (Methods class is offered by either the major department; e.g., English Education 442; or in the Department of Secondary Education: Ed Sec 442.)

Ed Sec 449E Extern in Secondary Teaching (3)

Second Semester

Ed Sec 449I Intern in Secondary Teaching (10)

Ed Sec 449S Seminar in Secondary Teaching (3)

(Student teaching and the seminar courses are offered by either the major department; e.g., English Education 449E, 449I and 449S or the Department of Secondary Education: 449E, 449I and 449S.)

Both semesters of the program entail a commitment from 8 a.m. to 3 p.m., Monday through Friday, plus additional time for preparation.

The curriculum for the first semester is a block of courses integrated with fieldwork. Students are assigned to specific learning centers, but arrangements can be made for work with master teachers outside of the learning center districts. The second semester is a semester of full-time student teaching.

Admission Procedures and Criteria

Admission to the university does not include admission to the single subject professional preparation program. Students must apply for admission into the single subject credential program the semester prior to anticipated enrollment in the program. Filing deadlines are February 28 (to begin the program the following fall) and September 30 (to begin the program the following spring). Applications for admission into the single subject professional preparation program are evaluated according to the following criteria:

1. Prerequisites to enter Fall 1985 program and thereafter:

Ed Sec 310 The Teaching Experience or equivalent (3)

Child Dev. 386 Adolescence or equivalent (3)

2. Scholarship (minimum grade-point average of 2.75 in all college and university work; minimum grade-point average of 3.0 in major and overall GPA in upper 50% of those students in the candidates discipline).

3. Breadth of understanding of subject matter relevant to single subject instruction.

4. Proficiency in reading comprehension and written and spoken English expression.

5. Specified personality and character traits relevant to teaching.

6. Work experience with young people.

7. Good mental and physical health.

8. Certificate of clearance with respect to absence of a criminal record.

9. Passage of the California Basic Education Skills Test.

Details concerning admission procedures and criteria are available in the Credential Preparation Center.

Admission to the second semester of student teaching is based on continuous and satisfactory progress in the program. Evaluations come from cooperating secondary school teachers and faculty working with the candidates in the program. Since student teaching is done on a full-time basis, student teachers will be limited to one additional course for that semester taken only in the late afternoon or evening.

Minimum Requirements

The requirements for a preliminary credential include:

1. Bachelor's or higher degree.
2. U.S. Constitution.
3. Basic Skills Test.
4. Subject matter competence.
5. Teaching of reading.
6. Professional preparation including student teaching.

Requirements for Clear Credential

1. Fifth year of study.
2. Health education (study of drug usage/effects).
3. Special Education (mainstreaming).

See the Catalog section describing waiver and credential programs.

To help ensure that the candidate meets all requirements academic advisement is essential. The Teacher Education Admissions Office provides this information.

Supplementary authorizations, specialist and service credentials are also available. See the catalog section on waivers and credentials as well as specific program offerings for more information.

Secondary Education Courses

110 The Teaching Experience: Exploration (3) (Formerly Ed Sec 210)

Exploration of one's self in relation to other people in the schools and an encounter with the teaching experience through fieldwork. Accompanying seminar to help students extend their observations and explore relevant issues. (2 hours fieldwork, 2 hours seminar) (Credit/no credit only. A "B" or better is required to receive a grade of credit.)

310 The Teaching Experience: Participation (3)

Active participation in school classrooms and analysis of the experience. Accompanying seminar will help students to analyze their fieldwork experiences. (4 hours fieldwork, 1 hour seminar) May be repeated with consent of instructor. Credit/no credit only. A "B" or better is required to receive a grade of credit.

404 Microcomputers for Secondary School Classrooms (3)

Prerequisite: Ed Sec 310. A course for secondary school teachers to use microcomputers in computer-assisted instruction in various curriculum areas and as an instructional tool.

405 Methods of Teaching Secondary School Business Courses Involving Computers (3)

Prerequisites: Ed Sec 310 or equivalent; Management Science 263 and 264 or Management Science 265 or equivalent. A teaching strategies course for business education teachers. Curriculum development techniques and problems of teaching business courses involving computers. Review and evaluation of texts, software, and other materials for instruction are included.

406 Educational Sociology (3)

The school in the social order; the school as a social system analysis of cultural factors affecting the school; the special culture of the school; roles and role conflicts in the school policy questions flowing from social issues and school cultural relationships.

440F Supervised Fieldwork in Secondary Schools (2)

Prerequisites: admission to teacher education. Observation and participation in instruction in secondary school learning centers 3 hours daily. Fieldwork associated with Ed Sec 440R, 440S and 442. Taken concurrently with these courses. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

440M Multicultural Education in Public Schools (3)

Prerequisite: Ed Sec 310 or equivalent. Techniques and methods for infusing multicultural elements into all subject fields in the public schools; development and evaluation of instructional strategies and resources; and examination of issues of multicultural education. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

440R Instruction in Reading for Secondary School Teaching (3)

Prerequisites: admission to teacher education. Instruction in developmental reading for prospective teachers in single subjects. Taken concurrently with Ed Sec 440F, 440S and 442. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

440S Foundations of Secondary School Teaching (4)

Prerequisites: admission to teacher education. Teaching competencies related to adolescent development, learning process and diagnosis of learning problems, evaluation of pupil achievement, and cultural differences of secondary school youth. Taken concurrently with Ed Sec 440F, 440R and 442. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

442 Teaching-in the Secondary School (3)

Prerequisite: admission to teacher education. Strategies and techniques for teaching a specified subject in the secondary school. Required before student teaching in the specified single subject credential area. Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

Art Ed 442 Teaching Art in the Secondary School

Ed Sec 442 Teaching Business in the Secondary School

Ed Sec 442S Teaching Social Science in the Secondary School

Engl Ed 442 Teaching English in the Secondary School

For Lang Ed 442 Teaching Foreign Languages in the Secondary School

Math Ed 442 Teaching Mathematics in the Secondary School

Mu Ed 442 Principles and Methods of Teaching Music in the Public Schools

Phys Ed 442 Teaching Physical Education in the Secondary School

Sci Ed 442 Teaching Science in the Secondary School

Speech Ed 442 Teaching Speech in the Secondary School

Theatre Ed 442 Teaching Theatre in the Secondary School

449E Externship in Secondary Teaching (3)

Prerequisite: concurrent enrollment in Ed Sec 440F, 440S and 442. Co-teaching in two secondary school classrooms. Integrated with Ed Sec 440F, 440R, 440S and 442. (See appropriate departmental offerings.) Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

449I Internship in Secondary Teaching (10)

Prerequisite: admission to student teaching. Full time student teaching in a specific single subject in a secondary school. (See appropriate departmental offerings.) Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

449S Seminar in Secondary Teaching (2)

Co-requisite Ed Sec 449I. Seminar in problems and teaching in a single subject in secondary schools. (See appropriate departmental offerings.) Must be taken Credit/No Credit. A "B" or better is required to receive a grade of credit.

499 Independent Study (1-3)

Prerequisites: senior or graduate standing, approval of instructor and department. Conduct of an individual investigation under supervision of a faculty member; investigation might be an experiment, a library study, or a creative project; only students of demonstrated capacity and maturity will be approved; adequate prerequisite study necessary.

501 Philosophy of Education (3)

Prerequisites: postgraduate standing and Ed Elm 339 or 439A,B or consent of instructor. Theories of knowledge, value and reality, and educational problem contemporary systems of thought and education.

Prerequisite: enrollment in M.S. Education or consent of instructor. Theory and procedures for constructing informal and standardized tests. Measurement theory, statistics and computer techniques for testing and interpreting test results. Item writing and analysis of standardized tests.

Prerequisites: Graduate standing. Elements of design, instrumentation, treatment of data, hypothesis testing and inference and analysis of educational data. Develop research proposal. Analyzing and evaluating research reports. (Same as Ed Adm 510, Reading 510, Spec Ed 510)

Prerequisite: baccalaureate degree or consent of instructor. A general course in pedagogy designed for students whose professional work involves instructional responsibilities. General teaching strategies, course design, instruction planning, and student evaluation are emphasized.

Prerequisite: Ed Sec 510 or Ed Elm 511 or equivalent. Methods of evaluating educational programs. Analysis of the models, theories, and underlying assumptions of evaluation. Data-gathering methods, analysis of data and preparation of reports.

Graduate seminars in such areas as behavior, teaching strategies, educational technology, program development, communication theory and interpersonal relations. May be repeated for credit.

Prerequisite: consent of instructor. Individual research on an empirical project, with conferences with the instructor, culminating in a project.

Prerequisite: consent of instructor. Individual research with conferences with the instructor, culminating in a thesis.

Specialist Credentials

Programs leading to three specialist credentials are available. They are:

- 1. Specialist credential to teach the learning handicapped (including the learning disabled, behavior disordered and educationally retarded).
- 2. Specialist credential to teach the severely handicapped (including the trainable mentally retarded, severely-multiply-handicapped, seriously emotionally disturbed and the autistic).
- 3. Specialist credential to teach the gifted.

All specialist training programs require a generic component and advanced specialist component, for the credential. Completion of the generic component is prerequisite to admission to advanced specialist component training.

Persons wishing to earn an advanced Special Education Specialist Credential must make formal application to the university indicating the specific specialist credential objective. In addition, applicants must meet the following requirements:

- 1. completion of a bachelor's degree;
- 2. presentation of a grade-point average of at least 2.75 in the last 60 units earned; and
- 3. possession of a preliminary multiple subject or single subject credential or another valid California standard teaching credential.

Advisement is available to any student seeking an advanced specialist credential in the Department of Special Education. New students will be assigned an adviser during the first month of the term in which they enter the Department of Special Education. Students should meet with their adviser during the first semester of enrollment in the Department of Special Education to file a credential study plan.

GENERIC SPECIALIST CREDENTIAL

All candidates for an advanced Special Education Specialist Credential must satisfactorily complete Special Ed 479 Observation of Exceptional Children (3).

ADVANCED SPECIALIST CREDENTIAL

The specific program for each advanced specialist credential requires the same course sequence; however, different activity sections are designed to meet the specific needs of each credential.

	Units
Special Ed 463 Exceptionality: Cognitive-Affective Characteristics	3
Special Ed 464 Exceptionality: Physical-Sensory Characteristics	3
Special Ed 482A,B,C or D Curriculum and Methods in Exceptionality	3
Special Ed 573 Exceptionality: Advanced Practices	3
Special Ed 484 Exceptionality: Non-educational Implications	3
Special Ed 481 Measurement in Special Education	3
Total (including 12 prerequisite units)	18

RESOURCE SPECIALIST CERTIFICATE OF COMPETENCY

The curriculum for the Resource Specialist Certificate of Competency is designed to prepare candidates having approved entry-level skills and professional preparation to assume the role as resource specialists in programs serving special education students, their parents and their regular teachers. The certificate program meets the competencies set forth by the California Commission for Teacher Preparation and Licensing as well as additional standards deemed appropriate by the faculty of the Department of Special Education, other university personnel and community advisory board members. Students desiring this certificate without enrolling for a degree or credential should apply for admission to the university as undeclared postbaccalaureate majors.

Prerequisites

- 1. A 2.75 GPA.
- 2. If not already accomplished, passage of the California Basic Education Skills Test.
- 3. Appropriate advanced specialist credential in Special Education.
- 4. Verification of three or more years of successful experience with students in regular and special education classes.

Requirements

Units

Special Ed 421 Working With Parents of Children with Exceptional Needs	3
Special Ed 496 Practicum in Special Education	3
Special Ed 528 Resource Specialist Seminar: Curriculum, Assessment, and Management	3
Special Ed 529 Resource Specialist Seminar: Consulting and Staff Development	3
Total units	12

MASTER OF SCIENCE IN EDUCATION (SPECIAL EDUCATION)

The program is designed to: (1) help individuals interpret and implement research related to exceptional children, conduct appropriate research in the classroom and/or clinical setting, become skilled in their abilities to diagnose with educational instruments and observation techniques, interpret the results of diagnostic procedures, prescribe and implement educational strategies; (2) provide teachers with competencies to enable them to fulfill the roles of supervising teachers and demonstration teachers in special classes; (3) prepare individuals for positions of leadership in the field of special education; and (4) prepare individuals to pursue graduate work toward the doctoral degree.

Study Plan

The adviser approved 30 units on the study plan will include the following:

Units

Core course work	15
Special Ed 510 Research Design and Analysis (3)	
Special Ed 586 Curriculum Issues in Special Education (3)	
Special Ed 520 Seminar in Measurement: Atypical Child (3)	

Special Ed 529 Resource Specialist Seminar: Consult/Inservice Skills (3)	
Special Ed 530 Graduate Seminar: Giftedness/Creativity (3)	
or Special Ed 531 Seminar in Development Disability (3)	
Electives	12
Minimum 6 units of 500-level courses;	
Maximum 6 units of 400-level;	
Maximum 6 units from other departments.	
Electives may be chosen from the following with adviser approval: Special Education 421, 463, 464, 484, 513, 522, 528, 595, 599	
Project/Thesis	3
Special Education 597 Project or Special Education 598 Thesis	
Total	30

For advisement and further information, consult the department graduate adviser.

Admission to Graduate Standing: Conditionally Classified

Requirements include a baccalaureate from an accredited institution and a grade-point average of at least 2.75 in the last 60 semester units attempted (see section on admission of graduates for complete statement and procedures regarding admission).

Graduate Standing: Classified

A student who meets the admission requirements and the following requirements, may be granted classified graduate standing upon the development of an approved study plan: (1) a grade-point average of 2.75 or better in all previous academic and related work; (2) an approved major; (3) completion of Special Ed 371 Exceptional Individual; (4) satisfactory interview and autobiography; (5) fulfillment of the Graduate Writing Requirement before completing more than nine units.

Special Education Courses

371 Exceptional Individual (3)

Children who deviate from the average in the elementary and the secondary schools; physically handicapped, mentally retarded, gifted, socially maladjusted, and emotionally disturbed. Special educational services, curriculum, procedures, and materials.

411 Mainstreaming (3)

A course designed to assist regular and special class teachers, school administrators and parents to implement the "Least Restrictive Environment" placement requirement of Public Law 94-142. Emphasis will be placed upon techniques to modify regular classrooms in order to accommodate handicapped children.

421 Working With Parents of Children With Exceptional Needs (3)

Patterns and problems of child rearing in families with exceptional children. Role of teachers and other professionals

in developing cooperative programs involving parents and/or other family members. Community resources. Designing change programs.

463 Exceptionality: Cognitive-Affective Characteristics (3)

Individuals who deviate from the norm in cognitive and emotional functioning; the educable mentally retarded, gifted, slow learner, behaviorally disordered and emotionally disturbed.

464 Exceptionality: Physical-Sensory Characteristics (3)

Individuals who deviate from the norm in physical-sensory functioning; the visually handicapped, multiply handicapped, physically handicapped, and trainable mentally retarded.

479 Observation of Exceptional Children (3)

Prerequisite: consent of instructor. Participation in a class for exceptional children for greater part of every school day. Includes a two-hour seminar each week in problems and procedures for teaching exceptional children.

481 Measurement in Special Education (3)

Prerequisite: SPED 371 or equivalent. The practical and theoretical aspects of measurement and assessment in special education. Teacher-made as well as commercial test as they relate to special education will be considered. Interpretation of multicultural and ethical problems will be considered.

482A Exceptionality: Curriculum and Methods for the Learning Handicapped (3) (Formerly 465A)

Prerequisites: Special Education 371 or 411. Curriculum development, methods and materials for teaching the learning handicapped. Lectures, demonstrations and practicum.

482B Exceptionality: Curriculum and Methods for the Severely Handicapped (3) (Formerly 465B)

Prerequisite: Special Education 371 or 411. Curriculum development, methods and materials for teaching the severely handicapped. Lectures,

482D Exceptionality: Curriculum and Methods for the Gifted (4) (Formerly 465D)

Corequisite: Special Education 463. Curriculum development, methods and materials for teaching the gifted. Lectures, demonstrations and practicum.

484 Exceptionality: Noneducational Implications (3) (Formerly 574)

Prerequisite: Special Education 371 or 411. Economic and social implications of exceptionality. The adjustment of the exceptional individual to society. Society's accommodation to the individual.

496 Senior Educational Practicum (1-3)

Conduct at an advanced level an educational practicum with educationally handicapped children.

499 Independent Study (1-3)

Prerequisites: senior or graduate standing and consent of instructor. Individual studies under the direction of faculty member. Experimental, library, or creative projects.

510 Research Design and Analysis (3)

(Same as EDSEC 510.)

511 Strategies for Integrating the Handicapped (2)

Corequisite: Educational Administration 593. Designed to assist the administrator to understand the nature of handicaps and their implications for program integration and mod-

ification as well as attitude modifications and resource allocation.

513 Exceptionality: Application of Contemporary Humanistic and Holistic Research (3)

Prerequisite: graduate standing or consent of instructor. A graduate seminar to explore humanistic theories and holistic process as a significant contemporary approach to curricular formulation for the education of the exceptional individual.

520 Seminar in Measurement: Atypical Children (3)

Prerequisite: SPED 481 or equivalent. Principles of measurement and the evaluation of atypical children. Areas covered: teacher design tests; normed tests and exceptional children; and using test for instructional planning.

522 Behavior Problems in the Classroom (3)

Prerequisite: Special Education 371 or consent of instructor. Identification and management of social and affective disturbances related to school performance. Early detection, behavioral modification techniques, parent counseling, interagency cooperation.

528 Resource Specialist Seminar: Curriculum, Assessment and Management (3)

Prerequisites: Special Education 463 and 464. Designed to prepare teachers to perform the coordination tasks of resource specialists. Focus is on curriculum, legal requirements of resource specialists programs, coordination functions and skills, and direct service to teachers and students.

529 Resource Specialist Seminar: Consulting and Inservice Skills (3)

Prerequisites: Special Education 463 and 464. To prepare teachers to perform consultation and staff development tasks required of resource specialists. Focus: collaborative consultation with other teachers, content and format for inservice activities, skills needed when working with decision-making groups.

530 Graduate Seminar in Giftedness and Creativity (3)

Prerequisite: Special Education 463 or consent of instructor. An examination of varieties of higher cognitive functioning

and those characteristics or performances described as creativity. Focus on ways to enhance skills in analysis, synthesis, evaluation, creative problem solving and divergent productions.

531 Exceptionality: Seminar in Developmental Disabilities (3)

Prerequisite: Special Education 463 or 464 or consent of instructor. Analysis of selected problems in the field of developmental disabilities with major emphasis upon independent investigation into contemporary theoretical and research contributions.

**573 Exceptionality: Advanced Practices (3)
(Formerly 573A,B,C,D)**

Prerequisite: Special Education 482. The application of specific educational, management, communication, and supervisory skills among administrators, teachers, aides, pupils, and parents. Weekly seminar and 120 hours fieldwork minimum.

586 Curriculum Issues in Special Education (3)

Prerequisite: Admission to graduate status and permission of the instructor. The philosophical, social, economic, and educational issues which underly decision-making with respect to curriculum and methods selection in special education.

595 Advanced Studies (1-3)

Graduate seminars to develop professional competencies in behavior, teaching strategies, educational technology, program development, communication theory and interpersonal relations. May be repeated for credit.

597 Project (1-3)

Prerequisite: consent of instructor. Individual research on an empirical project, with conferences with the instructor, culminating in a project.

598 Thesis (1-3)

Prerequisite: consent of instructor. Individual research with conferences with the instructor, culminating in a thesis.

599 Independent Graduate Research (1-3)

Prerequisite: consent of instructor. Independent inquiry. For qualified graduate students.

School of Humanities and Social Sciences

Dean: Don Schweitzer

Associate Dean: Chris Cozby

Coordinator of Student Academic Affairs:

Leon Gilbert

Assistant Dean, Student Services:

Marc Kellenberger

The School of Humanities and Social Sciences is composed of 17 departments, 7 cross-disciplinary programs and 4 special study centers. These units offer programs of study leading to 27 different minors, bachelor's degrees in 23 disciplines, 2 post-baccalaureate certificates, and master's degrees in 21 areas.

Some of these programs represent traditional areas of intellectual inquiry, others focus on emerging topics of study, and still others are professionally oriented. The common elements that unite these very different programs are the value of expanding the students' general knowledge, the worth of the intellectual pursuits, and the importance of humane inquiry. Together these common elements prepare students for a wide variety of possible careers by sharpening their skills in critical thinking, clear writing, and heightened understanding of the human condition.

Student Advisement and General Information

Academic advisement is provided by each of the departments and programs within the school. In addition, the school maintains an academic advisement office in McCarthy Hall 103 to serve students who have declared Humanities and Social Sciences as their school of interest, and to provide general coordination of advisement within the school.

Student organization activities within the school are facilitated and coordinated through the Humanities and Social Sciences Interclub Council and Marc Kellenberger.

Alumni of the school have formed the Humanities and Social Sciences Alumni Council to support and encourage the activities of students and faculty within the school.

Programs Offered

Afro-Ethnic Studies (Option in B.A. Ethnic Studies, Minor)

American Studies (M.A., B.A., Minor)

Anthropology (M.A., B.A., Minor)

Chicano Studies (Option in B.A. Ethnic Studies, Minor)

Christian Studies (Minor)

Clinical Rehabilitative Services (Credential, Credential with Special Authorization in Severe Disorders of Language)

Communications (M.A., B.A.)

Sequences:

Advertising

News-Editorial

Photocommunications (No M.A.)

Public Relations

Radio-Television-Film

Communicative Disorders (M.A., B.A.)

Comparative Literature (M.A., B.A.)

Criminal Justice (B.A., Minor)

English (M.A., B.A., Minor)

Environmental Studies (M.S.)

Ethnic Studies, (B.A.)

French (M.A., B.A., Minor)

Geography (M.A., B.A., Minor)

German (M.A., B.A., Minor)

Gerontology (Minor, Certificate)

History (M.A., B.A., Minor)

International Politics (Minor)

Jewish Studies (Minor)

Latin American Studies (B.A., Minor)

Liberal Studies (B.A.)

Linguistics (M.A., B.A., Minor)

Peace Studies (Minor)

Pacific Rim Studies (Minor)

Philosophy (B.A., Minor)

Political Science (M.A., B.A., Minor)

Public Administration (M.P.A., Concentration in B.A. Political Science, Minor)

Portuguese (Minor)

Psychology (M.A., M.S., B.A., Minor)

Religious Studies (B.A., Minor)

Russian and East European Area Studies (B.A.)

Secondary School Teaching Emphasis in Language Arts Area (Single Subject Waiver Program)

Social Sciences (M.A.)

Sociology (M.A., B.A., Minor)

Spanish (M.A., B.A., Minor)

Speech Communication (M.A., B.A., Minor)

Teachers of English as a Second Language (Certificate)

Teaching English to Speakers of Other Languages--TESOL (Concentration in M.S. Education)

Women's Studies (Minor)



Department of Afro-Ethnic Studies

Department Chair: Carl Jackson
Department Office: Education Classroom 475

Programs Offered

Bachelor of Arts in Ethnic Studies

Option in Afro-Ethnic Studies

Minor in Afro-Ethnic Studies

Faculty

Wacira Gethaiga, Carl Jackson, Emory J. Tolbert

Adviser

All programs: Wacira Gethaiga

INTRODUCTION

Afro-Ethnic studies is a multidisciplinary approach to understanding the black experience as it relates to life in America as part of a world community. In addition to degree programs in Afro-Ethnic studies, the department provides course work in the American Indian experience.

The required minimum for the Bachelor of Arts in Afro-Ethnic Studies consists of 36 units: 101, 107, 190, 220 or 280 and a minimum of 24 units in upper-division courses as follows.

Students majoring in the Afro-Ethnic Studies program have a special preparation in and sensitivity to the life in America as a part of a world community. The program is multi-disciplinary in nature in that all aspects of Afro Ethnic Studies affect and are affected by other programs.

Graduates from the Afro-Ethnic studies program have gone into careers in teaching, community development, community leadership, social work, urban research, law, civil service, industrial relations and a variety of comparable fields. Many have gone into graduate work in this field and some have entered more traditional disciplines where a general knowledge of social sciences and humanities is a prerequisite.

BACHELOR OF ARTS IN ETHNIC STUDIES OPTION IN AFRO-ETHNIC STUDIES

LOWER DIVISION COURSES: (12 units required)

A. Core Courses: (9 units required)

- Afro 101 Introduction to Ethnic Studies (3)
or Afro 107 Introduction to Afro-American Studies (3)
- Afro 190 Survey of American History with Emphasis on Ethnic Minorities (3)
- Afro 280 Survey of Afro-American History (3)

B. Electives (3 units required)

- Afro 220 The Indian in American History (3)
- Afro 245 A Survey of Black Political Development to 1900 (3)
- Afro 290 Social Research Methods in Afro-Ethnic Studies (3)

UPPER DIVISION COURSES (24 Units required)**A. Social Science Courses (12 units required)**

- Afro 309 Black Family (3)
- Afro 311 Intracultural Socialization Patterns (3)
- Afro 317 Black Politics (3)
- Afro 422 Psych of the Afro American (3)

B. Humanities Core Courses: (6 units required)

- Afro 301 Afro-American Culture (3)
- Afro 410 Afro-American Literature (3)

C. Electives (6 units required)

- Afro 310 Black Women in America (3)
- Afro 312 American Indian Women (3)
- Afro 314 Pan-African Dance & Movement (3)
- Afro 320 Black American Intellectual Thought (3)
- Afro 331 Tribalism and Reservation Life (3)
- Afro 335 History of Racism (3)
- Afro 346 The African Experience (3)
- Afro 352 African Literature (3)
- Afro 385 Schools and Minority Groups (3)
- Afro 403 Oral History of Ethnic America (3)
- Afro 430 A Social Psychological Study in Ethnic Minority Behavior (3)
- Afro 437 American Indian Religions and Philosophy (3)
- Afro 460 Afro-Amer Music Appreciation (3)
- Afro 485 Pan-Africanism and Contemporary Issues (3)
- Afro 499 Independent Study (1-3)

MINOR IN AFRO-ETHNIC STUDIES

Students interested in the Afro-Ethnic studies minor are required to take a minimum of 21 units. This includes six units of lower-division courses including Afro-Ethnic Studies 101 or 107 and 190.

Lower Division Courses (9 units)**A. Core Courses (6 units)**

- Afro 101 Introduction to Ethnic Studies (3)
- or Afro 107 Introduction to Afro-American Studies (3)
- Afro 190 Survey of American History with Emphasis on Ethnic Minorities (3)

B. Electives (3 units)

- Afro 220 The Indian in American History (3)
- Afro 245 A Survey of Black Political Development to 1900 (3)
- Afro 290 Social Research Methods in Afro-Ethnic Studies (3)

Upper Division Courses (12 units)**C. Social Sciences (6 units)**

- Afro 309 Black Family (3)
- Afro 311 Intracultural Socialization (3)
- Afro 317 Black Politics (3)

- Afro 430 A Social Psychological Study in Ethnic Minority Behavior (3)
- Afro 422 Psychology of the Afro-American (3)

D. Humanities and Electives (6 units)

- Afro 301 Afro-American Culture (3)
- Afro 310 Black Women in America (3)
- Afro 312 American Indian Women (3)
- Afro 314 Pan-African Dance & Movement (3)
- Afro 320 Black Amer Intellectual Thought (3)
- Afro 335 History of Racism (3)
- Afro 346 The African Experience (3)
- Afro 352 African Literature (3)
- Afro 385 Schools and Minority Groups (3)
- Afro 410 Afro-American Literature (3)
- Afro 485 Pan Africanism and Contemporary Issues (3)
- Afro 499 Independent Studies (1, 2, 3)

Afro-Ethnic Studies Courses

101 Introduction to Ethnic Studies (3)

The perspective through which black and brown people have come to see themselves in terms of their own heroes, culture and contributions to societies in which they live and world society in general.

107 Introduction to Afro-American Studies (3)

The aims and objectives of the Afro-American studies. The basic terms and references that give substance to Afro-American studies.

190 Survey of American History with Emphasis on Ethnic Minorities (3)

(Same as History 190 and Chicano Studies 190)

220 The Indian in American History (3)

A chronological study of the history of the American Indian people and their struggle for survival from the pre-European era to present.

245 A Survey of Black Political Development to 1900 (3)

A study in the background of Black American political development in the United States and the influence that slavery had on the lifestyle of Blacks in American political development.

280 Afro-American History (3) (Formerly 240A,B)

A survey of the social, economic, political, cultural history of black Americans from African origins to present. Among the topics will be the history of slavery, the development of racism, accomodation and protest, black nationalism and the civil rights movement.

290 Social Research Methods in Afro-Ethnic Studies (3)

Prerequisite: Sociology 203 or Psychology 203 or consent of instructor. Research methods and designs in gathering data in social theory, sampling statistics. Introduction to techniques in data processing analysis, method designs and oral historical research.

301 Afro-American Culture (3)

Prerequisites: Afro-Ethnic Studies 101 or 107 or 190 or consent of instructor. African cultural characteristics in the New World and contemporary events, including art, ideas, dance and literature.

- 309 The Black Family (3)**
Prerequisites: Afro-Ethnic Studies 101 or 107 or 190 or consent of instructor. The American social conditions that shaped the black family from the African cultural patterns to the family that exists today. The roles of poverty, racism and discrimination.
- 310 Black Women in America (3)**
Prerequisite: Afro-Ethnic Studies 190. Issue in the study of Black women in America, including social, political, economic and intellectual development. Historical and contemporary issues as they affect Black American Women will be investigated.
- 311 Intracultural Socialization Patterns (3)**
Patterns of role learning as they vary within subpopulations; changes over time in the values, attitudes, and goals of both the general culture and of subcultures; stereotypes and realities; understanding and dealing with cultural variation as well as cultural "norms." (Same as Human Services 311)
- 312 American Indian Women (3)**
Prerequisite: Afro-Ethnic Studies 101 or consent of instructor. The female role in American Indian tribal lifestyles. Labor divisions, leadership, political and social activities from a number of tribes. Historical and contemporary issues, as they affect American Indian women.
- 314 Pan-African Dance and Movement (3)**
Theory and practice of movement of African and Haitian peoples. Movement (dance) as quasi-language in perpetuating the life style of African cultures and cultures of African descent.
- 317 Black Politics (3)**
Prerequisite: Political Science 100 and Afro-Ethnic Studies 107 or consent of instructor. Blacks' struggle for political equality and relief from political oppression. Public policies concerning Blacks' freedoms, liberties and property rights. (Same as Political Science 317)
- 320 Black American Intellectual Thought (3)**
Prerequisite: Afro-Ethnic Studies 190. A study of the Black American intellectual from slavery to contemporary times, with special emphasis on Black contributions to American political and social thought as well as their contributions in America's social development.
- 331 Tribalism and Reservation Life (3)**
Prerequisites: Afro-Ethnic Studies 101 or 220 or consent of instructor. Tribalism in contemporary Indian affairs. Indian self-determination on reservations; political, economic and social lifeways relative to the dominant society: Field trips to local reservations.
- 335 History of Racism (3)**
An investigation into the historical roots and current expressions of racism. Course focuses on how racism manifests itself through individual, social, political, economic and religious institutions and proposes methods of combating it.
- 346 The African Experience (3)**
Prerequisite: Upper division standing. African history from the origin of the black man and traditional African civilization through the African diaspora to the institutional realities of Africa today. Not available for credit to students who have completed History 355.
- 352 African Literature (3)**
(Same as English 352 and Comparative Literature 352)
- 385 Schools and Minority Groups (3)**
The prevailing educational practices in regard to minority groups in elementary school through college, including minority students' failure patterns, what is being done to change failures, and the outcomes of these practices.
- 403 Oral History of Ethnic America (3)**
Prerequisite: Afro-Ethnic Studies 190. Theoretical and practical study of oral history focusing on the experiences of American ethnic groups. Examines oral history through the study of oral sources emphasizing traditions, culture and institutions of various ethnic groups.
- 410 Afro-American Literature (3)**
Prerequisites: Afro-Ethnic Studies 107 or English 101 or consent of instructor. The literary contributions by major black American authors. Contemporary black writers and the recurring themes of protest and quest for identity.
- 422 Psychology of the Afro-American (3)**
Black identity and the life styles that have risen from racism. The socioeconomic, political, cultural conditions which have fostered the blackness concept and the psychological devices used by blacks to survive.
- 430 A Social Psychological Study in Ethnic Minority Behavior (3)**
Prerequisites: Afro-Ethnic Studies 101 or 107 or consent of instructor. The social psychological problems that ethnic minorities face such as stress-related problems in mental health. Society's reactions to these problems among these groups.
- 437 American Indian Religions and Philosophy (3)**
Prerequisite: Afro-Ethnic Studies 331 or consent of instructor. Examination of American Indian religious and philosophical perspectives. Survey of religious interpretations and thought in various facets of belief ranging from traditional Indian religion to Christianity. Contemporary religious activities will be highlighted. (Same as Religious Studies 437)
- 460 Afro-American Music Appreciation (3)**
Prerequisites: Afro-Ethnic Studies 107 or 190 or consent of instructor. Black music in America; the sociological conditions that help produce various forms of black music.
- 485 Pan-Africanism and Contemporary Issues (3)**
Prerequisites: Three units of general education course in introductory social sciences. The history and literature of the Pan-African Movement within the framework of Western domination. An analysis of the impact of economic and political control over third world Black nations within the context of racism, colonialism, and imperialism.
- 499 Independent Study (1-3)**
Prerequisites: senior level and acceptance of the subject by department chair and instructor directing the study.

Department of American Studies

Department Chair: Allan Axelrad
Department Office: Education Classroom 622

Programs Offered

Bachelor of Arts in American Studies

Minor in American Studies

Master of Arts in American Studies

Faculty

Allan Axelrad, Jesse Battan, Wayne Hobson,
John Ibson, Karen Lystra, Michael Steiner,
E. James Weaver, Leila Zenderland

Advisers

Undergraduate: All full-time faculty within the department

Graduate: Karen Lystra

INTRODUCTION

American Studies gives students a thorough understanding of the past and present nature of American civilization. Three central features of our approach are: (1) an emphasis on the analysis of culture—that shared system of beliefs, behaviors, symbols, and material objects through which Americans give meaning to their lives; (2) examination of the interplay between a dominant culture and the many subcultures in America; and (3) the interdisciplinary nature, drawing on both the social sciences and humanities.

Besides providing a rich liberal arts education, training in the major develops skills in writing and analysis and strengthens the ability to recognize connections among complex materials and diverse phenomena. American Studies graduates obtain careers in business, communications, government service, law, social services, and teaching. The major is also a fine background for graduate work in the field or in related fields.

Teacher Credential

American Studies participates in the Ryan Act teacher credential program with course work for secondary school waivers in the social sciences and history, and with course work for the elementary school multiple subject waiver. Because American studies is interdisciplinary, the major provides a particularly fine background for elementary school teaching and for secondary school teaching in the social sciences.

C. Social Sciences (6 units)

- Afro 309 Black Family (3)
- Afro 311 Intracultural Socialization (3)
- Afro 317 Black Politics (3)

American Studies Scholarship

A maximum of \$400 per semester is awarded to an undergraduate major in American Studies based on need and academic achievement.

BACHELOR OF ARTS IN AMERICAN STUDIES

The major consists of 36 units: (I) 12 units in the core program; and (II) 24 units of electives following either Plan A or B.

I. Core program (12 units) required of all majors.

- 201 Introduction to American Studies (3)
- 301 The American Character (3)
- 350 Seminar in Theory and Method of American Studies (3)
- 401 Proseminar in American Studies (3)

II. Electives (24 upper-division units) approved by the major adviser, following either Plan A or B.

A. Work in American studies and one or two other fields such as anthropology, communications, criminal justice, English, history, geography, political science, psychology and sociology.

B. Course work pursuing a particular theme or subject, such as: law and society, sex roles, the visual arts, ethnicity, urbanization, the child and the family, and popular culture.

MINOR IN AMERICAN STUDIES

The minor in American studies requires 21 units: American Studies 201, 301 or 345, and 401, plus 12 units of electives. Six units may be lower division and three units may be taken in a related department upon approval of an American Studies Department adviser.

MASTER OF ARTS IN AMERICAN STUDIES

The degree is for qualified students in the arts, humanities and social sciences who are interested in an interdisciplinary approach to American society and culture. The program puts a general emphasis on the processes of social and cultural change. The interdisciplinary form of training, with a focus on a unified approach to American materials, seeks to provide a full vision of our particular complex industrial culture. Particular areas of faculty concentration within the program include: popular culture, white ethnicity, regionalism, film-art-architecture as cultural image, Puritanism, sexuality and American culture, and American cultural radicalism, though the student is encouraged to draw upon the knowledge and expertise available in any relevant area of the arts, humanities and social sciences.

Admission to Graduate Standing: Conditionally Classified

A student must meet the all-university requirements for admission. (Please consult the appropriate section of this catalog for complete information.) In addition, a student must (1) hold a bachelor's degree with a major, or its equivalent, in American studies or in an appropriate discipline of the humanities or social sciences, (2) have a grade-point-average of

at least 3.0 in upper-division major courses, and (3) submit two satisfactory letters of recommendation from instructors in upper-division major courses.

Students whose undergraduate program indicates certain limited subject, grade, or breadth deficiencies may be considered for admission, at the discretion of the graduate coordinator, with approval of the department's graduate committee. In such cases, a student must make up deficiencies, in consultation with the graduate program adviser, and must complete all required courses with at least a B average before classified graduate standing may be considered.

Graduate Standing: Classified

Students will be classified upon fulfillment of the above prerequisites, and after development of an approved study plan.

Study Plan

The program requires 30 units of graduate study: 21 units in the discipline of American studies, 6 units in other disciplines, and 3 units in development of an appropriate research skill.

1. American Studies (21 units)

A. Required courses

American Studies 501 Theory and Methods (3)

American Studies 502 Seminar: Selected Topics (3) (May be repeated for credit with different topic)

B. Electives

Additional upper-division or graduate level course work in American Studies (12)

Choose either C. or D. as follows:

C. American Studies 598: Thesis (3) Should be taken in the semester immediately preceding graduation from the program.

D. An additional American Studies graduate level elective, i.e., American Studies 599 or American Studies 502 (3), plus successful completion of a three-part comprehensive examination.

This examination is based on the department's core reading list, which can be obtained from the graduate program adviser. The M.A. Comprehensive is a four-day take-home examination, given out on the Thursday before classes begin each semester. Students must register their intention to take the exam with the graduate coordinator in the beginning of the semester they wish to complete their M.A.

2. Graduate level seminars in other disciplines (anthropology, art, communications, comparative literature, English, geography, history, political science, sociology) (6 units)

3. Elective skill (3 units)

A student must demonstrate proficiency in a methodological skill appropriate to his or her scholarly interests. In consultation with an adviser, the student will select the skill to be developed. Proficiency in a foreign language, quantitative methods or linguistics would, for example, be appropriate.

If prerequisite work is necessary before a student can develop proficiency through three units of course work, that preliminary work will not be counted toward the 30 units required for the M.A. degree.

For further information, consult graduate program adviser.

American Studies Courses

101 Introduction to American Culture Studies (3)

The concepts of interdisciplinary culture studies, focusing on analysis of cultural change in complex, literate society. American culture, including cross-cultural comparisons. Topics include popular culture, subcultures, regionalism, myths and symbols, and culture and personality.

201 Introduction to American Studies (3)

With the concept of culture as a unifying principle, focus is on four separate time periods in order to provide the framework for an understanding of American civilization. Several different kinds of documents will be used to illustrate the nature and advantages of an interdisciplinary approach.

300 Introduction to American Popular Culture (3)

An historical exploration of popular culture in America as it both reflects and contributes to the search for meaning in everyday life. Themes include heroes, myths of success, symbols of power, images of romance, consumerism, race and sexual identity.

301 The American Character (3)

Cultural environment and personality. The extent to which there have been and continue to be distinctly American patterns of belief and behavior. Similarities, as well as class, ethnic, sex and regional differences among Americans.

318 Hollywood and America: Using Film as a Cultural Document (3)

An examination of Hollywood as a cultural institution. Concentrating on the films of selected periods, analyzes Hollywood's ability to create and transmit symbols and myths, and legitimize new values and patterns of behavior.

325 30's America Through Films (3)

A cultural history of Depression America using contemporary films as one measure of that culture. The relationship between social values and institutions and popular arts. Hollywood productions such as King Kong and Duck Soup will be shown.

333 Visual Arts in Contemporary America (3)

Visual phenomena in America as they reveal changes in recent American culture. Areas covered include the "high" arts (painting, sculpture) as contrasted with the "low" arts (advertising, television); the artist as innovator, alienation, the business world, and American values in art.

345 The American Dream (3)

An interdisciplinary analysis, in settings both historical and contemporary, of the myth and reality surrounding the notion of America as a land of unparalleled and unlimited possibilities, especially in the achievement of personal material success.

346 American Culture Through Spectator Sports (3)

Study of the shifting meaning of organized sports in changing American society. Includes analysis of sports rituals,

symbols and heroes. Focus is on the cultural significance of amateur and professional football, baseball and basketball.

350 Seminar in Theory & Method of American Studies (3)

Prerequisites: American Studies 201 and 301; or consent of instructor. To provide an understanding and appreciation of methodology, theories of society and images of man as they affect American studies contributions to scholarship. Fulfills the course requirement of the university upper-division baccalaureate writing requirement for American studies majors.

355 American Sexual Politics (3)

Why sexuality has become increasingly important in American culture and politics. Historical and contemporary reform and the current sexual counter-reform movement (involving issues such as abortion and gay rights).

360 Cultural Radicalism in America (3)

The designs and strategies for cultural transformation of selected radical groups and individuals from the Puritans to the present.

365 The Culture of the American South (3)

Prerequisite: Completion of the general education requirement for American History and Culture. Examines distinctive cultural patterns in the American South, past and present. Topics include: Southern concepts of work and leisure, race and gender roles, political and religious controversies, literature and folklore, and the South as portrayed in the media.

386A American Social History, 1750-1860 (3)

(Same as History 386A)

386B American Social History, 1865-1930 (3)

(Same as History 386B)

393 American Humor (3)

Analyzes the cultural significance of various types of American humor in past and present settings. How humor reinforces existing culture and also serves as an index and agent of cultural change. Humor's relationship to ethnicity, region, social class and sex.

395 The American West in Symbol and Myth (3)

The meaning of the West to American culture through analysis of cultural documents such as explorer and captivity narratives, fiction, art and film. Topics include: perception of wilderness, Indians, frontiersmen and role of West in creating a sexist national mythology.

401 Proseminar in American Studies (3)

Prerequisites: American Studies 201 and 301; or consent of instructor. The relationship between theory and application. Analytic readings and research. Check the class schedule for topics being considered. May be repeated for credit.

402 Religion and American Culture (3)

Prerequisite: Upper division standing. An interdisciplinary analysis of the religious dimensions of American core culture from colonial settlement to the present. Topics include: Puritanism; rationalization, secularization and Feminization; the conversion experience, revivalism and revitalization; fundamentalism and modernism; and civil religion.

405 Images of Crime & Violence in American Culture (3)

Cultural analysis of meanings ascribed to law and order, authority, violence and punishment in the American past and present. Examined in selected symbols, images, traditions, and realities, including: the gun, police, vigilantes, "hard-

boiled detectives," "romantic outlaws," and "crime waves."

411 The White Ethnic in America (3)

Past and present cultures of America's white ethnic groups, principally non-Anglo-Saxon people such as the Jews, Irish and Italians. Ethnic stereotypes, the survival, repression and loss of ethnicity.

412 Freedom and Repression in American Culture (3)

Focuses on pre-industrial American culture, comparing features of modern industrial American culture to that earlier "world we have lost." Topics include: privacy, social control, sexual expression, technology and change.

413 The Shifting Role & Image of the American Male (3)

The effect of economic, social, political and cultural changes on American males. Emphasis on the 19th and 20th centuries.

415 The Hero in American Popular Culture (3)

Nineteenth- and 20th-century materials, including dime novels, pulps, detective fiction, comic strips, and films, will be utilized to examine the role of the hero in American imagination.

416 Southern California Culture: A Study of American Regionalism (3)

Regionalism as a concept and as a fact of American life. Theories of regionalism measured against a study of Southern California and one other distinct American region.

420 Childhood and Family in American Culture (3)

Historical and contemporary culture study of childhood and family in America. The idea of childhood, changing concepts of child-rearing, growing up in the American past, the impact of modernization, mother and home as dominant cultural symbols.

438 American Minds: Images of Sickness and Health (3)

Prerequisite: upper-division standing. Historically explores cultural changes in American images of the healthy mind. Topics include medical and legal views of insanity, Freud's impact on American thought, literary treatments of madness, and psychological themes in American popular culture.

440 American Folk Culture (3)

Prerequisite: upper-division standing or consent of instructor. Considers American culture from the perspectives of

particular folk groups and through the eyes of the "common" person, past and present. Topics include: interpretation of artifacts and oral traditions; relationships between regional, ethnic and folk identity; modernization and folk consciousness.

450 Women in American Society (3)

Socio-cultural history of women and women's movements in American society. Emphasis on 19th and 20th centuries. Examination of cultural models of American womanhood—maternal, domestic, sexual, social—their development and recent changes.

498 American Studies Internship (3)

Prerequisite: junior or senior standing and consent of faculty supervisor. Work experience in the public or private sector related to the student's preparation in systematic study of American culture. Hours to be arranged. Limited to American Studies majors only.

499 Independent Study (1-3)

Supervised research projects in American studies to be taken with the consent of instructor and department chair. May be repeated for credit.

501 Theory and Methods (3)

The American Studies movement. Its conceptual and methodological development. The way this development was affected by and in turn reflected larger trends in the culture itself.

502 Seminar: Selected Topics (3)

A particular problem or topic as a case study in the use of interdisciplinary methods in American studies. May be repeated for credit.

598 Thesis (3)

Prerequisite: graduate standing in American Studies and consent of graduate coordinator. The writing of a thesis based on original research and its analysis and evaluation.

599 Independent Graduate Research (1-3)

Prerequisite: graduate standing in American Studies and consent of graduate coordinator. May be repeated for credit.

Anthro 328 Peoples of the Pacific (3)
Anthro 340 Peoples of the Pacific (3)
Anthro 345 Peoples of the Pacific: East & West (3)
Anthro 346 Peoples of the Pacific (3)

Anthro 348 Archaeology of the Pacific (3)

Anthro 347 Peoples of the Pacific (3)

Anthro 349 California Archaeology (3)

Anthro 352 Peoples of Ancient Europe (3)

Anthro 300 Contemporary Amer Culture (3)

Anthro 373 Health & Nutrition in the Third World (3)

Anthro 395 Archaeological Fieldwork in Israel (3)

Methods (3 units)

Students must take at least one of the following courses:

Anthro 401 Ethnographic Field Methods (3)

Anthro 402 Museum Science (3)

Anthro 403 Archaeological Fieldwork (3)

The major in Anthropology is designed to prepare students for advanced degrees in Anthropology as well as for positions in the private and public sector. Social service occupations, work in urban centers, museum work, health professions, natural resources management, and overseas work are some of the areas that offer many opportunities for anthropology graduates.

BACHELOR OF ARTS IN ANTHROPOLOGY

Basic Requirements (18 units)

- Anthro 101 Intro to Biological Anthropology (3)
- Anthro 102 Introduction to Cultural Anthropology (3)
- Anthro 103 Introduction to Archaeology (3)
- Anthro 300 Language and Culture (3) or
- Anthro 416 Anthropological Linguistics (3)
- Anthro 480 History of Anthropology (3)
- Anthro 481 Contemporary Anthropology (3)

Core Topics (3 units)

Students must take at least one of the following courses:

- Anthro 302 Culture and Personality: Psychological Anthropology (3)
- Anthro 303 Economic Anthropology (3)
- Anthro 305 Anthropology of Religion (3)
- Anthro 306 Comparative Aesthetics and Symbolism (3)
- Anthro 307 Culture and Communication (3)
- Anthro 308 Culture Change (3)
- Anthro 309 Applied Anthropology (3)

Area Topics (3 units)

Students must take at least one of the following courses:

- Anthro 321 The American Indian (3)
- Anthro 324A The Ancient Maya (3)
- Anthro 324B The Aztecs and Their Predecessors (3)
- Anthro 325 Peoples of South America (3)
- Anthro 326 Archaeology of South America (3)
- Anthro 327 Origins of Civilizations (3)
- Anthro 328 Peoples of Africa (3)
- Anthro 340 Peoples of Asia (3)
- Anthro 345 Peoples of Middle East & North Africa (3)
- Anthro 346 Archaeology of the Holy Land (3)
- Anthro 347 Peoples of the Pacific (3)
- Anthro 349 California Archaeology (3)
- Anthro 352 Peoples of Ancient Europe (3)
- Anthro 360 Contemporary Amer Culture (3)
- Anthro 373 Health & Nutrition in the Third World (3)
- Anthro 395 Archaeological Fieldwork in Israel (3)

Methods (3 units)

Students must take at least one of the following courses:

- Anthro 401 Ethnographic Field Methods (3)
- Anthro 402 Museum Science (3)
- Anthro 403 Archaeological Fieldwork (3)

- Anthro 404 Analytical Methods in Archaeology (3)
- Anthro 405 Human Osteology (3)
- Anthro 406 Descriptive Linguistics (3)

Electives (18 units)

In consultation with an adviser, students must choose no fewer than nine units of upper-division anthropology courses; with the approval of an adviser up to nine units of the 18 required may be in related fields.

Total: 45 units

Note: In anthropology, the 300-level courses are core and area courses, and the 400-level courses are methods and specialized topics courses. Unless indicated by specific prerequisite requirements, courses on the 400-level are no more advanced or difficult than those on the 300-level. Students are urged to take courses in the order that will best serve their interests and needs.

MINOR IN ANTHROPOLOGY

Twenty-one units must be taken. Anthropology 100 or 101 or 103, 102, 300, 480 and 481 are required; plus six additional units of upper-division anthropology.

MASTER OF ARTS IN ANTHROPOLOGY

The program offers advanced study of general anthropology, while simultaneously encouraging specialization in one (or more) of the traditional subdisciplines: archaeology, cultural anthropology, linguistics and physical anthropology. Opportunities for field and laboratory research and for other related learning experiences permit students to enlarge upon formal classroom training and to work independently with original data. Students may pursue a thesis or project of either a traditional or more exploratory character. Efforts are made to assist individuals to plan programs that will meet their individual needs and interests.

Prerequisites

An applicant must meet the university requirements for admission in conditionally classified graduate standing: a baccalaureate from an accredited institution and a grade-point average of at least 2.5 in the last 60 semester units attempted (see section of this catalog on admission of graduates for complete statement and procedures). Admission is contingent upon evaluation and acceptance by the Graduate Study Committee. The applicant must submit: department questionnaire, letter of intent, transcripts, and at least two letters of recommendation. Students with limited subject or grade deficiencies may be considered for admission to the program if they agree to complete additional courses selected by the Graduate Study Committee, with at least a 3.0 (B) average. Subject deficiencies must be met prior to candidacy. Students entering from other colleges and universities and/or from fields other than anthropology may discuss appropriate course substitutions with the Graduate Study Committee.

Classification

A student who meets the requirements for conditionally classified graduate standing, as well as the fol-

lowing requirements, may be granted classified graduate standing upon the development of an approved study plan:

1. A bachelor's degree with a minimum of 27 units in anthropology, including the following courses or their equivalents.
 - a. Lower Division
Anthropology 101, 102 and 103 9 units
 - b. Upper Division
Anthropology 300 or 416, 480 and 481 9 units
 - c. One core topic, one area topic, and one methods course (see catalog under Requirements for a Bachelor of Arts in Anthropology for a listing of courses in these categories) 9 units
- Total 27 units

Reading courses and special examinations may be substituted for some of these prerequisites by the department.

2. A GPA of 3.0 (B) for all work taken in anthropology.
3. Classification review administered by the graduate adviser.

Study Plan

The study plan for the degree must include the following:

	Units
1. Anthro 501 Seminar: Methodology of Anthropological Research	3
2. Anthro 502 Contemporary Theory in Cultural Anthropology	3
3. Anthro 598 Thesis or Anthro 597 Project	6
4. Two additional graduate seminars in anthropology	6
5. Upper division or graduate work in anthropology	6
6. Upper division or graduate work in anthropology or related fields	6

Any adviser-approved 300- to 400-level course taken as a graduate student may be used for requirements 5 and 6. Up to six units of Anthropology 599, Independent Graduate Research, may be used for requirement 5 and/or 6. For continuation in the program an average of 3.0 (B) for all work in the study plan must be maintained.

Students must remain continuously enrolled, either by enrolling in at least one anthropology course each semester or by enrolling in Graduate Studies 700. Students may request a waiver of this requirement for one or two semesters if professional purposes require absence from campus. A student who is not continuously enrolled will be required to apply for readmission to the program. A thesis or a project, including an oral examination, must be completed for the degree. Normally a student will register for thesis or project two times, for three units each semester. Anthropology 501 and 502 must be taken within the first 1 1/2 years of graduate work.

The progress of graduate students will be reviewed prior to classification and again before advancement to candidacy.

For further information, consult the graduate program adviser. See also the Department of Anthropology's student brochure.

Anthropology Courses

- 100 Non-Western Cultures and the Western Tradition (3)**
An examination of the changing views of man, nature and culture in Western civilization as related to the impact of non-Western influences, including the use and interpretation of data on non-Western peoples and cultures.
- 101 Introduction to Biological Anthropology (3)**
Humans as biological organisms and in evolutionary perspective. Concepts, methods, findings and issues in the study of the order primates, including the relationships between fossil monkeys, apes and humans, and the significance of genetic diversity between modern populations.
- 102 Introduction to Cultural Anthropology (3)**
The nature of culture and its significance. Uniformities and variations in human cultures. Cultural analyses of major institutional forms such as the family, economy, government, religion and art with an emphasis on preliterate peoples. Central problems of cultural comparison and interpretation.
- 103 Introduction to Archaeology (3)**
Relationship of archaeology, culture history and culture process, field methods and analysis of archaeological data; the uses and abuses of archaeology. World culture history from Pleistocene beginnings to the threshold of civilization.
- 104 Traditional Cultures of the World (3)**
A comparative, worldwide survey of traditional, selected and well-studied ways of life using ethnographic writings, novels and films. Examines representative bands, tribes, chiefdoms, primitive states and folk societies.
- 300 Language and Culture (3)**
Prerequisite: Anthropology 102 or consent of instructor. Language as a factor in culture. Trends in the study of language and culture. (Same as Linguistics 300)
- 302 Culture & Personality: Psychological Anthropology (3)**
Prerequisites: Anthropology 102 or consent of instructor. The relationship between the individual and the culture. Child training in non-western cultures. Survey of concepts, studies, and research techniques.
- 303 Economic Anthropology (3)**
Prerequisite: Anthropology 102 or consent of instructor. The ethnology and ethnography of economic life, principally in non-western societies; the operation of systems of production and distribution within diverse cultural contexts.
- 305 Anthropology of Religion (3)**
Prerequisite: Anthropology 102 or consent of instructor. Beliefs and practices in the full human variation of religious phenomena, with an emphasis on primitive religions. The forms, functions, structures, symbolism, and history and evolution of religious systems. (Same as Religious Studies 305)
- 306 Comparative Aesthetics and Symbolism (3)**
The metaphysical and mystical systems underlying the "grammars" of the art, poetry, languages, myths, music and rituals of various nonliterate and literate peoples and their development into creative experiences.

307 Culture and Communication (3)

Prerequisite: Anthropology 300 or consent of instructor. How culture meaning and manipulation are constituted in both traditional and modern cultures through language, mythology, ritual, architecture, religion, and other communication systems.

308 Culture Change (3)

Prerequisite: Anthropology 102 or consent of instructor. Interrelations between cultural, social and psychological processes in the dynamics of culture growth and change. Impact of western technology on tribal and peasant societies. Anthropological contributions to the planning of directed sociocultural change in selected areas.

309 Applied Anthropology (3)

The uses of anthropological skills and sensitivities in approaching contemporary human problems. Cultural change, organizational development, program planning and evaluation, the consultant's role, and professional ethics.

321 The American Indian (3)

Prerequisite: Anthropology 102 or consent of instructor. North American Indians north of Mexico; origin, languages, culture areas, cultural history; the impact of European contacts.

324A The Ancient Maya (3)

Prerequisite: Anthropology 102 or consent of instructor. The archaeology and ethnohistory of the Maya area of Southern Mesoamerica. The problems of initial settlement of the area and the "rise" and dynamics of ancient Maya civilization.

324B The Aztecs and Their Predecessors (3)

Prerequisite: Anthropology 102 or consent of instructor. Archaeological survey of principal Mesoamerica pre-Columbian cultures north and west of Maya area. The Aztecs and their predecessors, religion, art, architecture, intellectual achievements and the Olmec heritage.

325 Peoples of South America (3)

Prerequisite: Anthropology 102 or consent of instructor. Central and South America. Representative cultural areas before and after contacts with Western countries.

326 Archaeology of South America (3)

Prerequisite: Anthropology 102 or consent of instructor. Archaeological and ethnohistorical survey of the culture areas and ecological zones of South America, lower Central America and the West Indies, including Inca civilization and its origin, possible trans-oceanic contact, religion, medicine and technology.

327 Origins of Civilizations (3)

The development of civilization in both the Old and New Worlds in primary centers such as Mesopotamia, Egypt, the Indus Valley, China, Mesoamerica and Peru, and secondary centers such as the Aegean and Europe.

328 People of Africa (3)

Prerequisite: Anthropology 102 or consent of instructor. A cultural survey of Africa. Description of selected cultures and aspects of culture before and after contact with non-Africans.

340 Peoples of Asia (3)

Prerequisite: Anthropology 102 or consent of instructor. A survey of Asian civilizations and cultural traditions, emphasizing the study of the personality configurations in different culture areas, the analysis of the structure of Asian civiliza-

tions, and an examination of the peasant, tribal and ethnic groups of Asia.

345 Peoples of the Middle East and North Africa (3)

Prerequisite: Anthropology 102 or consent of instructor. Interrelationship between culture, economy, political structure and belief system of selected cultures in the Middle East and North Africa.

346 Archaeology of the Holy Land (3)

Prerequisite: Anthropology 103 or consent of instructor. Culture history of ancient Palestine from the Paleolithic to historic times. Changes in settlement patterns, resource base and sociopolitical organization.

347 Peoples of the Pacific (3)

Prerequisite: Anthropology 102 or consent of instructor. The indigenous peoples and cultures of the Pacific Islands, including Tahiti, Hawaii and Australia. The forces and processes contributing to social change in island communities and current problems being faced by them.

349 California Archaeology (3)

Prerequisite: Anthropology 101 or 103 or consent of instructor. An archaeological survey of California, emphasizing the examination of recent scientific excavations. Analysis of new archaeological methods, current research specializations, responsibilities of the modern archaeologist, and review of legislation affecting archaeology.

352 Peoples of Ancient Europe (3)

Prerequisite: Anthropology 102 or consent of instructor. The cultural and social institutions of the peoples of pre-Christian Europe. The Greek, Italic, Germanic and Celtic peoples. Readings from original ancient writers.

360 Contemporary American Culture (3)

Prerequisite: Anthropology 102 or consent of instructor. Application of anthropological methods, categories of analysis, and types of interpretation to American culture. Survey and critique of selected community studies and other kinds of relevant research.

373 Health and Nutrition in the Third World (3)

Traditional beliefs and practices related to health and nutrition in Third World cultures. Conflicts between tradition and attempts to introduce new approaches.

375 Science in Archaeology (3)

Prerequisite: Completion of Physical Science and Biological Science categories of general education. Applications of the techniques of the Natural Sciences to Archaeological data for dating and analysis of artifactual and biological materials in order to reconstruct past lifeways.

390 Archaeological Investigations (3)

Prerequisites: Anthropology 102 or 103 or consent of instructor. Variable topic archaeological fieldwork and/or touring course. Sites and museums will be visited. May be repeated for credit, with different topics. (1 hour lecture, 6 hours laboratory)

395 Archaeological Fieldwork in Israel (3)

Prerequisite: Anthropology 103 or consent of instructor. Archaeological field course in Israel, stressing excavation, mapping, recording, and pottery and tool classification, description and registration. May be repeated for credit.

401 Ethnographic Field Methods (3)

Prerequisites: Anthropology 102 and six additional units of anthropology or consent of instructor. Anthropological field

research by students on various problems using participant observation techniques.

402 Museum Science (3)

Methods, principles and techniques used in natural history, and small scientific and historical museums. Subjects covered include scope of exhibit and research collections, care and repair of specimens, acquisitions, storage and preparation of presentations in anthropological, historical, biological and paleontological museums.

403 Archaeological Fieldwork (3)

Prerequisites: Anthropology 102 or 103 and consent of instructor. Excavation of a local archaeological site. Archaeological mapping, photography and recording. Laboratory methods of cataloging, preservation, description and interpretation of archaeological materials. Saturday field sessions. May be repeated once for credit as an elective. (1 hour lecture, 6 hours laboratory)

404 Analytical Methods in Archaeology (3)

Prerequisites: Anthropology 103 and 403. The employment of physical data collecting techniques (e.g., photographic, palaeo-magnetic) in the field and the analysis of artifact collections and data from previous field operations in the laboratory. May be repeated once for credit as an elective. (1 hour lecture, 6 hours laboratory) (Instructional materials fee required.)

405 Human Osteology (3)

Prerequisite: consent of instructor. Techniques in the basic identification of human skeletal remains. Aging, sexing, racing and stature reconstruction. For those interested in archaeology, hominid evolution and/or forensic science. (2 hours lecture, 3 hours laboratory)

406 Descriptive Linguistics (3)

(Same as Linguistics 406)

415 Culture and Nutrition (3)

Prerequisites: Anthropology 101 or 102 or consent of instructor. Interrelationships between human nutrition, basic food resources, individual development and socio-cultural organization; includes assessment of student's nutritional status, beliefs, and practices relative to other cultures.

416 Anthropological Linguistics (3)

Nature and functions of language; language structure and change; classification of languages; use of linguistic evidence in anthropology. (Same as Linguistics 416)

417 Life Quests (3)

Contemporary ways to wisdom and humanness in cross-cultural and historical perspectives. New and comparative approaches to understanding the life cycle, development and fulfillment of individual personalities.

418 Mental Illness in Cross-Cultural Perspective (3)

Problems in the cross-cultural definition and treatment of mental illness. Cross-cultural perspectives on symptomatology and etiology, culture bound disorders, the folk healer, and the relationship between cultural change and mental disorders.

432 Woman in Cross-Cultural Perspective (3)

Prerequisite: Anthropology 102 or consent of instructor. The influence of biological determinants as they are shaped by cultural beliefs, values, expectations and socially defined roles for women. The changing role of women in industrial society.

440 Human Evolution (3)

Prerequisite: Anthropology 101. Advanced primate evolution; the origin of *Homo sapiens* as evidenced in the fossil record and through biochemical and molecular studies. Evolutionary theory and problems in human evolution. (2 hours lecture, 3 hours laboratory)

441 Human Variation (3)

Prerequisite: Anthropology 101. The processes underlying and the theories for the existence of the present variation between and within human populations. The genetics of human populations and the significance of racial classifications. (2 hours lecture, 3 hours laboratory)

442 Medical Anthropology (3)

Human health and disease and their relationship to cultural practices, beliefs and environmental factors; histories of various diseases as factors of cultural change; health care delivery systems.

450 Culture and Education (3)

Prerequisite: Anthropology 102 or Teacher Education 301 or consent of instructor. The transmission of values, implicit cultural assumptions, and the patterning of education in cross-cultural perspective. American culture and development problems.

480 History of Anthropology (3)

Prerequisite: Anthropology 102 or consent of instructor. The principal contributions of anthropologists 1850-1950; evolutionary, diffusionist, historical, particularist, configurationalist, and culture and personality approaches in anthropology.

481 Contemporary Anthropology (3)

Prerequisite: Anthropology 102 or consent of instructor. Anthropologists from 1950 to the present; neoevolutionist, sociological, structuralist, psychological and symbolic approaches.

490 Undergraduate Seminar in Anthropology (3)

Prerequisite: consent of instructor. Topics in anthropology. May be repeated for credit.

491 Internship in Anthropology (3)

Prerequisites: 18 upper division units in anthropology and/or related fields. Career opportunities. On-the-job training under faculty supervision in museum, industry or governmental service.

499 Independent Study (1-3)

Prerequisites: at least 15 units of anthropology and consent of adviser. Individual research project involving either library or fieldwork. Conferences with the adviser as necessary. Results in one or more papers. May be repeated for credit.

501 Seminar: Methodology of Anthropological Research (3)

Prerequisites: Anthropology 102, 401 and consent of instructor. The contemporary methodological spectrum in anthropology and new trends in research planning and implementation.

502 Contemporary Theory in Cultural Anthropology (3)

Prerequisite: Anthropology 480 or consent of instructor. The basic assumptions and theoretical positions of leading contemporary anthropologists.

504 Seminar: Selected Topics in Anthropology (3)

Prerequisites: completion of undergraduate major in Anthropology and/or graduate standing or consent of instructor.

Department of Chicano Studies

Department Chair: Isaac Cardenas

Department Office: Education Classroom 475

Programs Offered

Bachelor of Arts in Ethnic Studies

Option in Chicano Studies

Minor in Chicano Studies

Faculty

Isaac Cardenas, Dagoberto Fuentes,
Adolfo Ortega, Joseph Platt

Advisers

Consult the department chair.

INTRODUCTION

Chicano Studies examines the culture, language, education, history, politics, and socioeconomics of Americans of Mexican heritage. The major in Chicano Studies emphasizes preparation for: (1) those interested in teaching either at the elementary and secondary level; (2) specialists in bilingual cross-cultural education; (3) majors in other academic fields such as liberal studies, history, sociology, psychology, literature, or anthropology, who wish to include additional scope to their field; (4) students pursuing advanced degrees (M.A. and Ph.D.); and (5) those entering a variety of occupations in urban affairs, government, social work, school administration, counseling, business, criminology, law, foreign service and other related areas.

The Chicano Studies option consists of 36 units, of which a minimum of 24 units must be upper division. Students must consult with their advisers for an approved study plan. In addition, Chicano Studies offers a minor consisting of 24 units.

CREDENTIAL INFORMATION

The Department of Chicano Studies offers course work leading to a CSUF Single Subject Waiver Program in Social Science. See the listing of required courses under the Department of Secondary Education.

The department also offers or participates in the CSUF Generic Multiple Subjects Waiver. Information on requirements is available from departmental advisers and from the Office of Admission to Teacher Education.

Human Variation (3)

Prerequisites: Anthropology 102 or consent of instructor. The theories for the evolution of man and the theories for the evolution of man and the theories for the evolution of man and the theories for the evolution of man.

Medical Anthropology (3)

Prerequisites: Anthropology 102 or consent of instructor. Theories of health and illness, biological, behavioral, and environmental factors, histories of various diseases, factors of cultural change, health care delivery systems.

Culture and Education (3)

Prerequisites: Anthropology 102 or Teacher Education 201 or consent of instructor. The transmission of values, implicit cultural assumptions, and the patterning of education in cross-cultural perspective. American culture and development problems.

History of Anthropology (3)

Prerequisites: Anthropology 102 or consent of instructor. The conceptual contributions of anthropologists 1880-1950; evolutionary, functional, structural, particularist, and contextualist and the culture and personality approaches in anthropology.

Contemporary Anthropology (3)

Prerequisites: Anthropology 102 or consent of instructor. Anthropologists from 1950 to the present: neoevolutionary, sociobiological, structuralist, psychological and symbolic approaches.

Undergraduate Seminar in Anthropology (3)

Prerequisites: consent of instructor. Topics in anthropology. May be repeated for credit.

Internship in Anthropology (3)

Prerequisites: 15 upper division units in anthropology and/or related fields. Career opportunities. On-the-job training under faculty supervision in museum, university or governmental settings.

Independent Study (1-3)

Prerequisites: at least 15 units of anthropology and consent of adviser. Individual research project involving either library or fieldwork. Conference with the adviser as necessary. Results in one or more papers. May be repeated for credit.

Seminar: Methodology of Anthropological Research (3)

Prerequisites: Anthropology 102, 401 and consent of instructor. The contemporary methodological spectrum in anthropology and new trends in research planning and implementation.

Contemporary Theory in Cultural Anthropology (3)

Prerequisites: Anthropology 480 or consent of instructor. The basic assumptions and theoretical positions of leading contemporary anthropologists.

Seminar: Selected Topics in Anthropology (3)

Prerequisites: completion of undergraduate major in Anthropology and/or graduate standing or consent of instructor.

All students interested in exploring careers in teaching at the elementary or secondary school levels should contact the Admission to Teacher Education Office and their academic adviser for assistance in planning their academic and professional preparation.

BACHELOR OF ARTS IN ETHNIC STUDIES OPTION IN CHICANO STUDIES

Lower Division (6 units minimum):

- Chicano 106 Intro to Chicano Studies (3)
- Chicano 220 Mexican Heritage (3)

Upper Division (24 units minimum):

A. Required Courses (9 units required)

(to be selected from the following courses)

- Chicano 430 Evolution of Mexican Literature (3)
- Chicano 431 The Chicano Child (3)
- Chicano 440 Mexican Intellectual Thought (3)
- Chicano 445 History of the Chicano (3)
- Chicano 453 Mexico Since 1906 (3)

B. Electives (15 units minimum)

- Chicano 102 Communication Skills (3)
- Chicano 190 Survey of American History with Emphasis on Ethnic Minorities (3)
- Chicano 300 Barrio Conversational Spanish (3)
- Chicano 302 Ancient Mexican Culture (3)
- Chicano 304 Music of Mexico (3)
(same as Music 304)
- Chicano 305 The Chicano Family (3)
- Chicano 306 Barrio Studies (3)
- Chicano 316 The Chicano Music Experience (3)
- Chicano 335 Curanderismo: Chicano-Mexican Folk Medicine (3)
- Chicano 336 Main Trends in Spanish-American Literature (3)
- Chicano 337 Contemporary Chicano Literature (3)
- Chicano 360 Chicano and the Law (3)
- Chicano 403 Cultural Differences in Mexico and the Southwest (3)
- Chicano 406 La Chicana (3)
- Chicano 420 Spanish for the Elementary School Teacher in the Barrio (3)
- Chicano 430 Evolution of Mexican Literature (3)
- Chicano 431 The Chicano Child (3)
- Chicano 432 The Chicano Adolescent (3)
- Chicano 433 Mexican Literature Since 1940 (3)
- Chicano 438 Issues in Bilingual/Cross-Cultural Education (3)
- Chicano 440 Mexican Intellectual Thought (3)
- Chicano 445 History of the Chicano (3)
- Chicano 450 The Chicano and Contemporary Issues (3)
- Chicano 453 Mexico Since 1906 (3)
- Chicano 460 The Chicano and Politics (3)
- Chicano 499 Independent Study (1-3)

MINOR IN CHICANO STUDIES

The minor in Chicano Studies consists of 24 units in the following areas:

Required lower-division courses (6 units)

- Chicano 106 Intro to Chicano Studies (3)
- Chicano 220 Mexican Heritage (3)

Required upper-division courses (9 units)

(to be selected from the following)

- Chicano 430 The Evolution of Mexican Literature (3)
- Chicano 431 The Chicano Child (3)
- Chicano 440 Mexican Intellectual Thought (3)
- Chicano 445 History of the Chicano (3)
- Chicano 453 Mexico Since 1906 (3)

Approved electives

Nine units of approved course work in lower- and upper-division classes that are selected by the adviser.

Graduate Study

Chicano Studies offers courses for advanced study in the following graduate degree programs:

Master of Arts in Social Sciences

Master of Science in Education: Bilingual/Bicultural Concentration

Master of Arts in Spanish: Bilingual Studies Concentration

Chicano Studies Courses

102 Communication Skills (3)

The basic communication skills including oral and written expression. A unit on the mechanics of writing and reporting on a term paper.

106 Introduction to Chicano Studies (3)

The role of the Chicano in the United States. The Chicano's cultural values, social organization, urbanization patterns, and the problems in the area of education, politics and legislation.

190 Survey of American History with Emphasis on Ethnic Minorities (3)

(Same as History/Afro-Ethnic Studies 190. This course fulfills Title V, Statutory Requirements.)

220 Mexican Heritage (3)

The basic characteristics of the Mexican, especially the Chicano society and culture. From 1519 to the present. Emphasis on the arts, literature and history of Mexico and the Chicano in the United States.

300 Barrio Conversational Spanish (3)

Analysis of the Caló language of the southwestern states of the United States. The bicultural language of the Chicanos, origin, development and contemporary use in the barrios.

302 Ancient Mexican Culture (3)

An historical and cultural survey of the principal pre-Columbian cultures of Mexico and their significance for Mexican society.

304 Music of Mexico

(Same as Music 304)

- 305 The Chicano Family (3)**
The Chicano family development as an American social institution. Historical and cross-cultural perspectives. The socio-, and psychodynamics of the Chicano family.
- 306 Barrio Studies (3)**
Prerequisite: Chicano Studies 200 or 220 or consent of instructor. The major characteristics of the barrio. Supervised fieldwork in the barrio is required. Analysis of the barrio or agency will be made after fieldwork is completed. (2 hours lecture, 3 hours fieldwork)
- 316 The Chicano Music Experience (3)**
Mexican folk and popular music and its relation to the culture which produced it. The pre-Cortesian period to the present in Mexico and in the Southwestern United States.
- 335 Curanderismo: Chicano-Mexican Folk Medicine (3)**
The nature of Mexican folk medicine. Ethno-medicine and culture in Mexico and the Southwest. The underlying aspects of modern and folk medicine.
- 336 Main Trends in Spanish-American Literature (3)**
The main currents of Spanish American literature emphasizing contemporary works. The relation between the artistic expression and the ideological values of the period.
- 337 Contemporary Chicano Literature (3)**
Prerequisite: Chicano Studies 101 or 106, or 220, or 237, or consent of instructor. The modern Chicano writers in the United States: Allurista, Corky Gonzales, Octavio Romano, el treatro campesino and the major Chicano magazines and newspapers.
- 360 Chicanos and the Law (3)**
The relationship between Chicanos and the legal and judicial system, including the administration of justice, Chicano-police relations, and Chicanos and the prison system. Guest speakers will be a regular feature.
- 403 Cultural Differences in Mexico & the Southwest (3)**
The cultural conflicts in Mexico as seen by the contemporary thinkers of Mexico and the United States. Urban and rural problems.
- 406 La Chicana (3)**
The cultural influences that the family, religion, economic status and community play upon the lifestyles, the values and the roles held by Chicanas.
- 420 Spanish for the Elementary School Teacher in the Barrio (3)**
To improve the oral expression of teachers in the barrio elementary schools. The language patterns of the Chicano students and their parents.
- 430 The Evolution of Mexican Literature (3)**
Survey and analysis of the Nahautl, Mexican and Chicano literature from the pre-Columbian period to the present.
- 431 The Chicano Child (3)**
The Chicano child from preschool through grade six. Motor, physical, social, intellectual and emotional growth and development and their effect on school adjustment and achievement. Observation of preschool and grade school children.
- 432 The Chicano Adolescent (3)**
The Chicano adolescents' social, intellectual and emotional growth and development. The bicultural pressures from the barrio, family structure, school and achievement values.
- 433 Mexican Literature Since 1940 (3)**
The literature of Mexico since 1940: Carlos Fuentes, Luis Spota, Rodolfo Usigli, Xavier Villarrutia, Juan Jose Arreola, Octavio Paz, Roberto Blanco Moheno and Luis G. Basurto.
- 438 Issues in Bilingual/Cross-Cultural Education (3)**
The Chicano community involvement in issues of bilingual-bicultural education. Chicano education, literature, legislation, court decisions, political issues and programmatic efforts.
- 440 Mexican Intellectual Thought (3)**
Prerequisite: reading knowledge of Spanish and Chicano Studies 237 and 302 recommended. The emergence of the Chicano movement dealing with political, economic and sociological facets. The writings of the Nahautl, Spanish, Spanish-American, Chicano and contemporary writers.
- 445 History of the Chicano (3)**
History of the Chicano from the pre-Columbian period to the present. The Chicanos' changing role in the United States, their cultural identity crisis and their achievements.
- 450 The Chicano and Contemporary Issues (3)**
The socioeconomic and political problems confronting the Chicano including proposed solutions. The effect that social institutions have had on the Chicano community.
- 453 Mexico Since 1906 (3)**
Prerequisite: upper division class standing. The Mexican Revolution of 1910 stressing the political, economic and social aspects as well as its contributions in the fields of art, literature and social reforms.
- 460 The Chicano and Politics (3)**
Theory of urban politics and evaluation of issues that affect the Chicanos and American society. Evaluations and surveys will be made on political organizations in the Hispanic-surnamed communities. (Same as Political Science 460)
- 480 The Immigrant and the Chicano (3)**
Mexican immigration to the United States and its social, economic and political impacts on the Chicano and non-Chicano communities and other immigrant groups.
- 499 Independent Study (1-3)**
Prerequisites: senior level and approval by the department chair and instructor(s) in charge of directing the study. An opportunity to do independent study, under the guidance of the faculty, of a subject of special interest to the student.
- 599 Independent Graduate Research (1-3)**
Prerequisites: consent of instructor and classified status. Individual research for Chicano studies components in Master of Arts in Bilingual Studies (Spanish), Master of Science in Bilingual Education (Education) and related programs. Maximum of 3 hours credit.

Department of Communications

Department Chair: Edgar Trotter

Vice Chair: Lynne Gross

Department Office: Humanities 230

Daily Titan Newsroom, Humanities 213

Daily Titan Business Manager, Humanities 225A

Programs Offered

Bachelor of Arts in Communications

Concentrations: Advertising
News-Editorial
Photocommunications
Public Relations
Radio-Television Film

Master of Arts in Communications

Concentrations: Advertising
News-Editorial
Public Relations
Radio-Television Film

Faculty

Lalit Acharya, Michael Adams, James Alexander, Jay Berman, Fenton Calhoun, Wendell Crow, Emma Daugherty, David DeVries, Ronald Dyas, Tony Fellow, Lynne Gross, Mary Lynn Hartman, Terry Hynes, Carolyn Johnson, David Little, George Mastroianni, R. Dean Mills, Norman Nager, Patrick O'Donnell, Wayne Overbeck, David Pincus, Rick Pullen, Robert Rayfield, Marvin Rosen, Ted Smythe, Don Sunoo, Jay Swartz, Edgar Trotter, Larry Ward

Advisers

Undergraduate: All faculty serve as undergraduate advisers. Students may find their assigned adviser posted on the bulletin board outside Humanities 230.
Graduate: R. Dean Mills

INTRODUCTION

Effective ethical communications are essential for the well-being of a democratic society. Thus, there is a need for persons trained in the theory and practice of informing, instructing, and persuading through communications media. The educational objectives of the programs leading to the Bachelor of Arts in Communications are: (1) to ensure that all majors receive a broad liberal education; (2) to provide majors with a clear understanding of the role of communications media in society; and (3) to prepare majors desiring communications-related careers in the mass media, business, government and education by educating them in depth in one of the specialized sequences within the department.

BACHELOR OF ARTS IN COMMUNICATIONS

A communications major is required to take 12 units of core requirements in addition to 24 units in a chosen sequence. The department offers five sequences: advertising, news-editorial, photocommunications, public relations, and radio-television-film.

The major totals 36 units.

Collateral requirements: Twelve units of upper-division course work in other departments approved by the adviser are also required. Collateral courses for each sequence are recommended by the sequence coordinator.

A minimum of 88 units must be taken outside the Communications Department.

Communications Core

The communications core provides background and perspective appropriate to all the departmental sequences and an understanding of the role of communicators and their contribution to the development of high standards of professionalism.

Nine units of required course work:

- Comm 233 Mass Comm in Modern Society (3)
- Comm 407 Communications Law (3)
- Comm 425 History and Philosophy of American Mass Communication (3)

Plus three units selected from the following:

- Comm 410 Principles of Comm Research (3)
- Comm 426 World Communication Systems (3)
- Comm 427 Current Issues in Mass Comm (3)
- Comm 428 Communications and Social Change (3)
- Comm 431 Mass Communications in Communist Systems (3)
- Comm 480 Persuasive Communications (3)
- Comm 481 Mass Communication and Conflict (3)

Communications Sequences

Every communications major must select and complete 24 units of course work in a major sequence.

Advertising

The objective of the advertising sequence is to prepare students for entry level positions in one or more of the four basic advertising activities: creative (copy, layout design), media, research, and management. Students are provided with knowledge and skills needed for work with an advertiser, advertising agency, the print and broadcast media, or support service industry.

- Comm 101 Writing for the Mass Media (3)
- Comm 350 Introduction to Advertising (3)
- Comm 352 Advertising Media (3)
- Comm 353 Advertising Copy and Layout (3)
- Comm 358 Graphics Communications (3)
- Comm 439 Mass Media Internship (3)
- Comm 450 Advertising Comm Management (3)

Plus three units selected from the following:

Comm 217, 301, 354, 361, 362, 381, 410, 451

And twelve collateral units of upper-division courses beyond general education which must be selected from the following list of approved courses: American Studies 301, 318, 345; Economics 310; English 301; Management 340; Marketing 351, 356, 359, 370, 379; Philosophy 312; Political Science 310; Psychology 351, 361, 416; Sociology 345, 372, 436; Speech Communication 320, 333. Courses not listed must be approved in advance by adviser.

News-Editorial

The principal objective of the news-editorial sequence is to provide the skills and practice necessary for careers in the print media. Specifically, the sequence objectives are: (1) to provide experience in writing various types of news stories, and to develop skills in reporting and news gathering techniques; (2) to develop critical acumen necessary to check news stories for accuracy and correctness; (3) to develop skills in graphics or photography that complement the journalistic writing skills; (4) to provide actual on-the-job experience by working on the campus newspaper and through an internship, and (5) to add breadth and depth to the professional's specialized skills through collateral courses.

- Comm 101 Writing for the Mass Media (3)
- Comm 201 Reporting for the Mass Media (3)
- Comm 332 Copy Editing and Makeup (3)
- Comm 335 Public Affairs Reporting (3)
- Comm 338 Newspaper Production (3)
- Comm 439 Mass Media Internship (3)

Plus three units from: Communications 217 or 358

And three units from: Communications 334, 430, 435, 436

And twelve collateral units of upper-division courses beyond general education which must be selected from the following list of approved courses: Economics 330, 335, 350, 361, 417, English 300, 303, 305, 462, 463, 464; History 475, 476, 484, 485; Political Science 300, 310, 315, 340, 347, 350, 375, 413, 440, 442, 443, 451, 457, 461, 473; Sociology 301, 341, 345, 348; Philosophy 300, 301, 304, 345, 378. Courses not listed must be approved in advance by adviser.

Photocommunications

The photocommunications sequence provides a comprehensive study of the aesthetics, theories, and practices of contemporary photography for professional careers in magazine and newspaper photography, and advertising/commercial photography.

- Comm 101 Writing for the Mass Media (3)
- Comm 217 Introduction to Black and White Photography (3)
- Comm 319 Photojournalism (3)
- Comm 321 Color Photography (3)
- Comm 439 Mass Media Internship (3)

Plus six units selected from the following:

Comm 220, 311, 326, 338, 340, 358, 409, 460.

Plus one of the following classes:

Comm 301, 334, 362.

And twelve collateral units of upper-division courses beyond general education which must be selected from the following list of approved courses: Art 323 A,B, 338 A,B, 339 A,B, 438 A,B, 470, 489; Accounting 301 A,B; Management 339; Physical Education 345; American Studies 333; Anthropology 306; Philosophy 311; Political Science 300; Biology 411; Chemistry 301 A,B; Physics 411. Courses not listed must be approved in advance by adviser.

Public Relations

This sequence provides preparation in both theory and practice of two-way communication and management counsel for prospective professional public relations careers in business, industry, agency, government, and nonprofit sectors of society.

Comm 101 Writing for Mass Media (3)
Comm 361 Principles of Public Relations (3)
Comm 362 Public Relations Writing (3)
Comm 439 Mass Media Internship (3)
Comm 464 Public Relations Management (3)

Plus nine units selected from the following:

Comm 217, 301, 334, 350, 358, 363, 410, 467, 497

And twelve collateral units of upper division courses beyond general education which must be selected from the following: Art 323A; Economics 310, 320, 410; Finance 320, 340; Management 339, 340, 343; Marketing 351; Management Science 422; English 301, 360; Geography 370; Health Education 407; Political Science 309, 413, 415; Psychology 351, 391, 453, 472; Sociology 341, 345, 348, 470, 473; Speech Communication 300, 320, 324, 333, 334, 420, 425. Courses not listed must be approved in advance by adviser.

Radio-Television-Film

Courses in this sequence are designed for an understanding of the history, theory and practice of radio-television and film. Students are prepared for entry level positions in business, education, and the broadcasting, cable and film industries.

Comm 301 Writing for Broadcasting and Film (3)
Comm 382 Broadcasting in America (3)
Comm 402 Advanced Writing for Radio, TV and Film (3)
Comm 439 Mass Media Internship (3)

Plus nine units selected from the following:

Comm 311, 378, 390, 411, 479, 484 or 488

Plus three units selected from the following:

Comm 345, 375 or 478

And twelve collateral units of upper-division courses beyond general education which must be selected from the following list of approved courses: Economics 320, 340, 350; English 322, 463, 465; History 476, 485; Management 339, 340, 343, 441; Market-

ing 351, 356, 452; Political Science 315, 410, 413, 414; Psychology 350, 351, 391, Sociology 348, 371, 436, 463; Speech Communication 320, 324, 325, 333; Theatre 364. Courses not listed must be approved in advance by adviser.

Writing Requirements

A communications major must satisfy both departmental and university writing requirements. English Usage Test (EUT): The EUT is a prerequisite to Communications department writing courses. It is administered free in January, April, August and October. Students are allowed three attempts to earn a passing score, but all attempts must be completed within one year of the initial attempt. The test should be taken prior to declaring a major in communications or immediately following enrollment in communications classes. Only students who have earned a baccalaureate degree or who have equivalent EPT, SAT or ACT scores are exempt from the EUT requirement.

University Writing Requirement: The course work portion of the university's upper-division baccalaureate writing requirement for communications majors may be met by satisfactory completion of any one of Communications 301, 334, 335, 338, 353, 362 and 371.

MASTER OF ARTS IN COMMUNICATIONS

The degree is designed to provide advanced study in communications theory and research plus some concentration in one of the department's sequences: advertising, news-editorial, public relations, or radio-television-film.

The program prepares the graduate to apply advanced communications concepts, research and development skills, and theories relevant to the use of communications media for a wide variety of purposes. Such study may serve those whose careers involve the use of print, broadcast and film media of communications to inform, instruct and persuade. Communications skills are highly applicable to a wide range of careers in business, industry, government, education and the mass media.

Students completing the Master of Arts in Communications are eligible for journalism teaching positions in community colleges.

Admission to Graduate Standing: Conditionally Classified

Normally, an applicant must meet grade-point average requirements of 3.0 in the undergraduate major and 2.75 in the last 60 semester units of undergraduate course work, meet the university requirements, and satisfactorily complete the Graduate Record Examination General Test prior to admission. Consult department for details regarding additional admission requirements.

Graduate Standing: Classified

A student admitted in conditionally classified standing may be granted classified standing upon the development of an approved study plan and satisfactory completion of prerequisite course work. Satisfactory coursework or its equivalent in the fol-

lowing may be taken concurrently with degree requirements if not completed prior to classification:

- (a) communications writing (Comm 201, 301, 353, or 362)
- (b) an introductory course in the area of specialization (Comm 332, 350, 361 or 382)
- (c) Comm 410 Principles of Communication Research

Study Plan

The student is required to complete 30 units of approved studies with a minimum grade-point average of 3.0 including 15 units in 500-level communications courses. Six of the 15 units of 500-level courses will be in thesis or project. The remaining units will be comprised of upper division or 500-level courses appropriate to the communications sequence.

The candidate shall develop a program of study in consultation with a sequence adviser and the graduate adviser of the Department of Communications. The candidate shall plan the thesis or project topic with a committee. The committee will include at least two faculty members from the Department of Communications.

Required 500-level Communication courses: *Units*

Comm 500 Theory and Literature of Communications	3
Comm 508 Humanistic Research in Communications	
or Comm 509 Social Science Research in Communications	3
Comm 515 Professional Problems in Specialized Fields	3
Comm 597 Project	
or Comm 598 Thesis	6

Total required 500-level units 15

Sequence-Related Courses:

Consult Communications Department Master's Program bulletin for sequence requirements.

Total required upper division or graduate units (including 520A, B or C or approved alternate) 15

Total 30

For further information and advisement, please consult the graduate program adviser.

Communications Courses

101 Writing for the Mass Media (3)

Prerequisite: Communications Department English Usage Test; typing ability. Principles and practices of writing for major types of mass communications media. Content, organization, conciseness and clarity.

201 Reporting for the Mass Media (3)

Prerequisites: Communications Department English Usage Test, Communications 101 or equivalent; typing ability. Development of expertise in the use of news reporting techniques combined with development of ability to compose complex journalistic writing forms for possible publication.

217 Introduction to Black and White Photography (3)

Cameras, accessories, materials, exposure, processing, printing, finishing, composition, filters, flash, studio tech-

niques, and special subject treatments and applications. (2 hours lecture, 2 hours activity)

220 Introduction to Color Photography (2)

Theory, principles and practice of color photography in mass communication. Communicating with color photography and slide-tape presentations. Work done with commercially processed slide film.

233 Mass Communication in Modern Society (3)

Newspapers, magazines, films, radio and television; their significance as social instruments and economic entities in modern society.

290A,B History and Aesthetics of the Motion Picture (3,3)

The study of motion picture as a global influence in mass communications and entertainment. Examination of film movements, the rise and fall of the studio system, and social influences. **A**— Origins to 1945; **B**— 1945 to present. Film screenings on and off campus. (2 hours lecture; 3 hours activity)

301 Writing for Broadcasting and Film (3)

Prerequisite: Communications Department English Usage Test; typing ability. Theory and principles of writing in the broadcast and film media.

311 Introduction to Motion Picture Production (3)

Theory and practice of motion picture photography and film production. (2 hours lecture, 3 hours laboratory)

319 Photojournalism (3)

Prerequisite: Comm 217 or equivalent. Photography for publication in print media. News, advertising, feature, sports, lifestyle, photo essay and documentary applications. (2 hours lecture, 3 hours laboratory)

321 Advanced Color Photography (3)

Prerequisites: Junior standing and Comm 319 or consent of instructor. Positive and negative color film processing sensitometry, and color printing. Creative and effective use of color in publications photography. (2 hours lecture, 3 hours laboratory)

326 Communications Photography (3)

Prerequisites: Junior standing and Comm 321, or consent of instructor. Photographs and photographic communications produced with the large format camera for the mass media, business, education, government, industry and science. (2 hours lecture, 3 hours laboratory)

332 Copy Editing and Makeup (3)

Prerequisites: Communications Department English Usage Test and Comm 201 or equivalent. Principles and practice of newspaper editing: copy improvement, headline writing, news photos and cutlines, wire services, typography, copy schedules and control, page design and layout, law and ethics. (2 hours lecture, 3 hours laboratory)

334 Feature Article Writing (3)

Prerequisites: Communications Department English Usage Test and Comm 101 or equivalent. Nonfiction writing for newspapers and magazines; sources, methods and markets.

335 Public Affairs Reporting (3)

Prerequisites: Communications Department English Usage Test, Comm 101 and 201, or consent of instructor; and junior standing. Communications 407 recommended. Reporting

public interest news such as courts, education, finance, government, police and urban problems.

338 Newspaper Production (3)

Prerequisites: Communications Department English Usage Test, Comm 201 or equivalent or consent of instructor. Members of the class constitute the editorial staff of the university newspaper. Meets four hours per week for critiques in news reporting, writing, editing and makeup, followed by production. May be repeated for a maximum of six units of credit. (More than 9 hours laboratory)

340 Photography in Advertising and Public Relations (3)

Prerequisites: junior standing and Comm 326 or consent of instructor. Advertising and public relations photography. Materials and techniques for producing photographs with visual impact suitable for photo reproduction. Students will prepare a portfolio of photographs. (2 hours lecture, 3 hours activity)

345 The Language of Film and Television (3)

Prerequisite: Comm 233 or consent of instructor. Critical and theoretical analysis of film and television as communication. Examines the manner in which an organized sequence of images and sounds communicates meaning using literature in semiology and visual communications.

350 Introduction to Advertising (3)

Advertising in America. The language and art of advertising and its role in marketing.

352 Advertising Media (3)

Prerequisites: Comm 350 or Marketing 354 and junior standing. Planning, execution and control of advertising media programs. Basic data and characteristics of the media. Buying and selling process, techniques, and methods in media planning process. Audience measurement and media analysis.

353 Advertising Copy and Layout (3)

Prerequisites: Communications Department English Usage Test and Comm 101, 350 or consent of instructor; and junior standing. Writing of copy and layout of advertisements, based on study of sales appeals, attention factors and illustrations. (2 hours lecture, 2 hours activity)

354 Retail Advertising (3)

Prerequisites: Comm 350, 353 or consent of instructor, and junior standing. Retail advertising and sales; supervised field assignments in the analysis of advertising needs.

358 Graphics Communications (3)

Prerequisite: Junior standing. Printing processes, publication formats, copy preparation, copy-fitting techniques, layout principles, paper selection and distribution methods. (2 hours lecture, 2 hours activity)

361 Principles of Public Relations (3)

Prerequisite: Junior standing. The social, behavioral, psychological, ethical, economic and political foundations of public relations, and the theories of public relations as a communications discipline.

362 Public Relations Writing (3)

Prerequisites: Communications Department English Usage Test; Comm 101 or consent of instructor; typing ability; junior standing. Communications analysis, writing for business, industry and nonprofit organizations. Creating effective forms of public relations communication. (2 hours lecture, 2 hours activity)

363 Publications Editing (3)

Prerequisites: Comm 361 and six units of communications writing or consent of instructor; and, junior standing. Editing functions and techniques involved in creative development of publications for business, industry and nonprofit organizations and institutions. Magazines, newspapers, newsletters and brochures.

371 Radio-Television News and Public Affairs (3)

Prerequisites: Communications Department English Usage Test, Comm 101, 201, 382 and 390; typing ability required. Covering news events and public affairs for radio and television. (2 hours lecture, 3 hours lab)

372 Advanced TV News Production (3)

Prerequisite: Comm 371 or consent of instructor. Writing, production and evaluation of television newscasts for local cable TV distribution. Lecture-discussion sessions on advanced reporting techniques and special problems in broadcast journalism. (2 hours lecture, 3 hours laboratory)

375 The Documentary Film (3)

Purpose, development, current trends, critical analysis and production requirements of the documentary film. Future of the medium in business, government, education, and television.

378 Introduction to Audio Production (3)

Prerequisite: Communications majors only. Audio production as it pertains to radio broadcasting, commercial production, and recording, television and film audio. (2 hours lecture, 3 hours laboratory)

381 Broadcast Copywriting (3)

Prerequisite: Comm 350 and junior standing. Writing of advertising copy for radio and television, based upon study of unique media and audience characteristics, costs and coverage. (2 hours lecture, 3 hours laboratory)

382 Broadcasting in America (3)

Prerequisite: Communications major or consent of instructor. The foundation course of the telecommunications sequence. Radio and television from a professional perspective. Economic, historical, regulatory aspects and the social effects of these media.

390 Introduction to Video Production (3)

Production of programs for broadcast stations and other video materials for cable, business, industrial, and instructional applications. (2 hours lecture, 3 hours laboratory)

402 Advanced Writing for Radio, Television and Film (3)

Prerequisites: Communications Department English Usage Test (EUT), Comm 301, and junior standing. An advanced writing class concentrating on the long form of broadcast and film writing, including documentaries, features, special news, commentaries, and analysis.

407 Communications Law (3)

Prerequisites: Comm 233 and junior standing. The Anglo-American concept of freedom of speech and press; statutes and administrative regulations affecting freedom of information and publishing, advertising, and telecommunication. Libel and slander, rights in news and advertising, contempt, copyright, and invasion of privacy.

409 Advanced Photojournalism (3)

Prerequisites: Comm 321 and junior standing or instructor's consent. Advanced press photography. Extensive use of cameras for photographic reporting; evaluation and prepa-

ration of pictures for publication. Field/laboratory experience in black and white and color. (2 hours lecture, 3 hours laboratory)

410 Principles of Communication Research (3)

Prerequisites: Comm 233 and junior standing. Research methods used to assess the effects of print, broadcast, and film communications on audience attitudes, opinions, knowledge, and behavior. Research design and data analysis in communications research.

411 Advanced Motion Picture Production (3)

Prerequisites: Comm 217, 301, 311 or concurrent enrollment, or consent of instructor. Theory, procedures and practice in film production: motion picture (silent and sound), scriptwriting, transfer and mixes, production, distribution and financing. (2 hours lecture, 3 hours lab)

425 History and Philosophy of American Mass Communication (3)

Prerequisites: Comm 233 and junior standing. American mass communication; newspapers and periodicals through radio and television; ideological, political, social and economical aspects.

426 World Communication Systems (3)

Prerequisites: Comm 233 and junior standing. Major mass communication systems, both democratic and totalitarian, and the means by which news and propaganda are conveyed internationally.

427 Current Issues in Mass Communication (3)

Prerequisites: Comm 233, 407 and 425 and junior standing. Exploration of current issues which cross department sequences. Controversial and changing concepts of the function and role of the mass media.

428 Communications and Social Change (3)

Prerequisites: Comm 233 and junior standing. How innovations—ideas, products, and practices perceived as new—are communicated to members of a social system. The roles of adopters, opinion leaders, change agents and communications in the diffusion of innovations and consequent changes in social systems.

430 Newspaper Management (3)

Prerequisite: Consent of instructor and junior standing. Organization, operation and administration of a newspaper's departmental activities: advertising, business, circulation, mechanical, news-editorial and promotion. (3 hours lecture, field trips, detailed study of one selected newspaper department)

431 Mass Communications in Communist Systems (3)

Prerequisite: Junior standing. Mass media in Communist societies; the U.S.S.R., the People's Republic of China, Poland and Yugoslavia. The mass media, people and party.

435 Editorial and Critical Writing (3)

Prerequisite: Communications Department English Usage Test, Comm 101 and upper division writing course and junior standing. Editorial and critical writer and opinion columnist roles. Techniques of editorial writing and aspects of critical thinking. (2 hours lecture; 2 hours lab and fieldwork)

436 Investigative and Specialized Reporting (3)

Prerequisites: Communications Department English Usage Test, Comm 332, 335 and 407; and junior standing. Investigative and interpretive reporting of complex or specialized subjects.

439 Mass Media Internship (3)

Prerequisites: Senior standing, communications major and consent of instructor. Supervised internship, according to sequence, with newspaper, magazine, radio or television station, press association, public relations firm or advertising agency. Application must be made through department coordinator one semester prior to entering program. (Credit/No Credit only)

450 Advertising Communications Management (3)

Prerequisites: Comm 350 and 352 and junior standing. Theory and techniques for planning, directing and evaluating advertising programs with emphasis on media-message strategies. Managerial approach with case studies to the solution of advertising communications problems.

451 National Advertising Campaigns (3)

Prerequisites: Comm 350, 352 and 353 and junior standing. Advertising campaigns and utilization of mass media such as television, newspapers and magazines, in national advertising programs. Design of complete campaigns from idea to production readiness.

460 Advanced Studies in Professional Photography (3)

Prerequisites: Comm 326 and junior standing or instructor's consent. Analysis and execution of contemporary photographic concepts. Students will refine aesthetics and techniques culminating in a portfolio for professional entry into photojournalism or commercial media photography. (2 hours lecture, 3 hours laboratory)

464 Public Relations Management (3)

Prerequisites: Comm 361 and junior standing. Analysis of systems and strategies for planning public relations campaigns and solving/preventing problems. Individual, team case studies, in corporate development of proposals; actual use of tools in addition to role playing presentations to management.

467 Public Relations Agency Seminar (3)

Prerequisites: Comm 101, 361 and junior standing. Seminar focuses on psychology and functions of client counseling, proposal writing, new business development, agency management, servicing clients, evaluation of methods, reporting results, and legal and ethical concerns.

478 Management in the Broadcasting & Film Industries (3)

Prerequisite: advanced standing, Comm 382 or consent of instructor. The study of management of the broadcasting, cable-TV and film industries with attention to financial structures, programming and government regulation.

479 Advanced Video Production (3)

Prerequisite: Comm 390 or consent of instructor. Producing programs for broadcast and other applications for cable, business, industrial and instructional use. Emphasis on location shooting and post production including electronic editing. (2 hours lecture, 3 hours laboratory)

480 Persuasive Communications (3)

Prerequisites: Comm 233 and junior standing. Persuasive communications applied to mass communication. The communicator, audience, message content and structure, and social context in influencing attitudes, beliefs and opinions.

481 Mass Communication and Conflict (3)

Prerequisites: Comm 233 and junior standing. Changes and similarities in the mass communication of conflict issues over the past 75 years: war and peace, the role of women and various reform movements. Undergraduate seminar.

484 Documentary Production (3)

Prerequisites: B average in Comm 390 and 479 or 488 and consent of instructor. A lecture/laboratory course in which students write and produce radio, television and film documentaries. (2 hours lecture, 3 hours laboratory)

488 Production Workshop for Cable Television (3)

Prerequisites: B average in Comm 390 and 479 or consent of instructor. Students produce informational and sport programs for cable TV systems and radio stations. May be repeated once for credit; only three units may apply to major. (9 hours laboratory)

496 Student-to-Student Tutorial (1-3)

Prerequisites: consent of instructor and previous superior performance in a similar or equivalent course. Under faculty supervision, student provides tutorial assistance in a communications course. May involve small group demonstrations and discussions, individual tutoring and evaluation of student performance as appropriate. May be repeated to a maximum of four units either separately or in combination with Comm 499.

497 Seminar in Public Communications Practices (3)

Prerequisite: Comm 464, junior standing and consent of instructor. Operationalizing public relations management principles. Role of public relations in contemporary society. Ethics, social responsibilities and trends in the emerging profession.

499 Independent Study (1-3)

Prerequisite: Consent of department chair. Individually supervised mass media projects and research on campus and in the community. May involve newspaper and magazine publishers, radio and television stations and public relations agencies. May be repeated up to a maximum of four units either separately or in combination with Com. 496.

500 Theory and Literature of Communications (3)

Prerequisite: Conditional classified status. Theories and research on communication processes and effects; source,

media, message, audience and content variables. Types, sources and uses of communication literature. Graduate seminar.

508 Humanistic Research in Communications (3)

Prerequisites: Comm 410, 500 or concurrent enrollment and classified status. Humanistic methods of study in communications: historical research and critical analysis applied to problems, issues and creative works in communication. Graduate seminar.

509 Social Science Research in Communications (3)

Prerequisites: Comm 410, 500 and classified status. Social-scientific research design and analysis and the study of communication processes and effects. Graduate seminar.

515 Professional Problems in Specialized Fields (3)

Prerequisite: Comm 500. Selected topics and issues in the field of mass communications. Subjects vary each semester. May be repeated for a maximum of six units.

520A,B,C Communications Practicum (3,3,3)

Prerequisites: Comm 500 and six units of study-plan courses in area of specialization. Under supervision of a faculty member, students plan, design, conduct and evaluate a team project in their field of specialization: **A**—News-Editorial, **B**—Radio-Television-Film, **C**—Public Relations.

597 Project (3 or 6)

Completion of creative project in a sequence beyond regularly offered course work.

598 Thesis (3 or 6)

Completion of a thesis in a sequence beyond regularly offered course work.

599 Independent Graduate Research (1-3)

Prerequisite: consent of department chair. Individually supervised mass media projects or research for graduate students. May be repeated.

Correlated Curriculum (12 units)

Courses in the related fields shall be selected by the student in consultation with an advisor. The purpose of this requirement is to allow for an awareness of the disciplines contributing to the creation of "Criminal Justice" as a separate subject. Upper division courses in such fields as Philosophy, Political Science, Psychology and Sociology can be considered in this regard. For a list of courses that can count in this regard, see the Criminal Justice bulletin board.

Writing Requirement (3 units)

One of the following courses

- Crim Just 350 - Principles and Concepts of Investigation and Reporting (3)
- English 301 - Advanced College Writing (3)
- English 365 - Legal Writing (3)

For further information on these alternatives, please see the Criminal Justice bulletin board.

MINOR IN CRIMINAL JUSTICE

The Minor in Criminal Justice consists of a total of 18 units including three required and three elective courses to be chosen from the criminal justice curriculum. The required courses are:

425 Juvenile Justice Administration (3)

Prerequisite: Crim Just 350 or consent of instructor. Definition of "delinquency" and the related responses of the involved institutions (police, courts and detention) to the

Department of Criminal Justice

Department Chair: W. Garrett Capune
Department Office: Education Classroom 622

Programs Offered

Bachelor of Arts in Criminal Justice

Minor in Criminal Justice

Faculty

W. Garrett Capune, James Farris, William Hobbs,
Jill Rosenbaum

Advisers

All full-time faculty with the department are advisers;
see Criminal Justice bulletin board for names, office
hours and room numbers.

INTRODUCTION

Criminal Justice is the study of the causes, consequences and control of crime. Like other new and developing fields, criminal justice is difficult to define as it draws from a number of different disciplines. . . psychology, public administration, philosophy, sociology and law.

The program leading to the Bachelor of Arts in Criminal Justice is designed to acquaint preservice and inservice students with the principles and practices of criminal justice in America. Although the department's curriculum allows for the development of depth in one of the subject's substantive subsystems (i.e., law enforcement, courts or corrections), the overriding objective is to familiarize students with activities in all the above areas.

The department is both academic and professional in that it is an interdisciplinary attempt to relate intellectual issues and practitioner perspectives to the challenge of crime in a free society. In this regard, the department provides preparation for employment with a related agency and/or further study, (e.g., law school).

PRIZES IN CRIMINAL JUSTICE

Two graduating seniors are acknowledged each year with the Good Student Award, one for academics and another for activities. All students completing the major with a 3.5 GPA are granted membership in the Baker Street Irregulars, the Criminal Justice Honor Students Society.

BACHELOR OF ARTS IN CRIMINAL JUSTICE

Every student must complete the core courses (15 units) and a minimum of 12 units in the concentration curriculum. In addition, each student is required to complete 12 units in a correlated curriculum.

For current information regarding the criminal justice program and its courses, consult the department's bulletin board in the hallway near EC-622.

Core Curriculum (15 units)

- Crim Just 300 Intro to Criminal Justice (3)
- Crim Just 310A Criminal Law: Substantive (3)
- Crim Just 320 Criminal Justice Admin: (3)
- Crim Just 330 Crime and Delinquency (3)
- Crim Just 340 Crim Justice Research Methodology (3)

Concentration Curriculum (12 units)

- Crim Just 310B Criminal Law: Procedural (3)
- Crim Just 325 Contemp Military Justice System (3)
- Crim Just 350 Principles and Concepts of Investigation and Reporting (3)
- Crim Just 415 The Enforcement Function (3)
- Crim Just 425 Juvenile Justice Administration (3)
- Crim Just 435 Adjudication and the Judiciary (3)
- Crim Just 445 Corrections (3)
- Crim Just 450 Organized Crime and Intelligence Analysis (3)
- Crim Just 475 Topics in Administration of Justice: A Seminar (3)
- Crim Just 480 Courtroom Evidence (3)
- Crim Just 485 Search, Seizure & Interrogation I (3)
- Crim Just 486 Search, Seizure & Interrogation II (3)
- Crim Just 495 Internship (3)
- Crim Just 499 Independent Study (3)

Correlated Curriculum (12 units)

Courses in the related fields shall be selected by the student in consultation with an adviser. The purpose of this requirement is to allow for an awareness of the disciplines contributing to the creation of "Criminal Justice" as a separate subject. Upper division courses in such fields as Philosophy, Political Science, Psychology and Sociology can be considered in this regard. For a list of courses that can count in this regard, see the Criminal Justice bulletin board.

Writing Requirement (3 units)

One of the following courses:

- Crim Just 350 Principles and Concepts of Investigation and Reporting (3)
- English 301 Advanced College Writing (3)
- English 365 Legal Writing (3)

For further information on these alternatives, please see the Criminal Justice bulletin board.

MINOR IN CRIMINAL JUSTICE

The Minor in Criminal Justice consists of a total of 18 units including three required and three elective courses to be chosen from the criminal justice curriculum. The required courses are:

- Crim Just 300 Intro to Criminal Justice (3)
- Crim Just 310A Criminal Law: Substantive (3)
- Crim Just 330 Crime and Delinquency (3)

Criminal Justice Courses

300 Introduction to Criminal Justice (3)

A study of the underlying ideological issues confronting America's system of criminal justice, with an emphasis on key concepts in conflict (law and order, rehabilitation vs. retribution, etc.).

310A Criminal Law: Substantive (3)

The general doctrines of criminal liability in the United States and the classification of crimes as against persons, property and the public welfare. The concept of governmental sanction of the conduct of the individual.

310B Criminal Law: Procedural (3)

Legal problems associated with the investigation of crime, the acquisition of evidence, the commencement of a criminal proceeding, the prosecution and defense of charges, sentencing and appeal. The development of existing procedures and examination of current efforts for reform.

320 Criminal Justice Administration (3)

Justice administration as a "single system;" modern management materials as applied to the involved institutions; line, staff and auxiliary activities both in principle and practice, and the associated administrative theories.

325 Contemporary Military Justice System (3)

Evolution of the military justice system. Comparisons to the civilian legal system. Practical application of concepts and requirements, including investigations, searches, charges, judicial and non-judicial punishments.

330 Crime and Delinquency (3)

The nature and extent of criminality; traditional and topical theories regarding etiology; research methods, sociological and psychological theories.

340 Criminal Justice Research Methodology (3)

Elementary statistics including descriptives, measurements and tests; data collection methods for effort evaluation and program prediction; systems analysis techniques.

350 Principles and Concepts of Investigation and Reporting (3)

Prerequisite: Crim Just 310A or equivalent. Principles of investigative activity practiced by police, courts and correctional subsystems. Reporting procedures and requirements. *Meets classroom portion of upper-division writing requirement for Criminal Justice majors.*

415 The Enforcement Function (3)

Prerequisite: Crim Just 300 or consent of instructor. The historical and philosophical development of the enforcement function at federal, state and local levels; community controls, political pressures and legal limitations pertaining to law enforcement agencies at each level of government; police policies and problems vis-a-vis the administration of justice as a system.

425 Juvenile Justice Administration (3)

Prerequisite: Crim Just 300 or consent of instructor. Definitions of "delinquency" and the related responses of the interested institutions (police, courts and correction); the ju-

venile court (past and present), and prevention and correction programs (practicing and proposed).

430 Women and Crime (3)

Prerequisite: Crim Just 300 or Philosophy 302. An examination of women as criminals and victims, gender differences in criminal behavior and the role of women as professionals in the criminal justice system.

435 Adjudication and the Judiciary (3)

Prerequisite: Crim Just 300 or consent of instructor. The associated sociological doctrine and institutions at the federal, state and local levels; political controls and legal limitations pertaining to each; the nature of the judicial process; the participants' roles and relationships to the administration of justice as a system.

445 Corrections (3)

Prerequisite: Crim Just 300 or consent of instructor. An overview of the origins, processes, organization, and contemporary trends of corrections in America. Course will target management, control, and treatment of adult and juvenile offenders in both institutions and community programs.

450 Organized Crime and Intelligence Analysis (3)

Prerequisite: Crim Just 300. History and development of organized crime. Current criminological strategies of control of organizational crime. Systems theories and other analytical techniques of police intelligence.

475 Topics in Administration of Justice: A Seminar (3)

Prerequisite: Crim Just 300 or consent of instructor. Current social, legal and practical problems confronting the police, the courts and corrections. A "variable topic" class with specific subjects to be announced each semester.

480 Courtroom Evidence (3)

Prerequisite: Crim Just 300 or consent of instructor. The rules of evidence in the context of a criminal trial in a California court. The rules, their application and their rationale. Lecture, discussion and simulated courtroom situations.

485 Search, Seizure and Interrogation I (3) (Formerly 485A)

Prerequisite: Crim Just 300 or consent of instructor. An analysis of the laws that apply in common street search-and-seizure and interrogation situations in California; how they have evolved, and what developments are anticipated.

486 Search, Seizure and Interrogation II (3) (Formerly 485B)

Prerequisites: Crim Just 300 or consent of instructor. An analysis of the laws that apply in some of the less common search-and-seizure and interrogation situations, such as those involving the border patrol and school officials.

495 Internships (3)

Prerequisites: Crim Just 300 and consent of instructor. The criminal justice professions. Eight to 20 hours per week as a supervised intern in a public agency or related organization. In addition to the job experience, interns meet in a weekly three-hour seminar.

499 Independent Study (1-3)

Prerequisites: at least 12 hours of criminal justice and consent of adviser. Student selects an individual research project, either library or field. Conferences with adviser as necessary, culminating in one or more papers. May be repeated for credit.

Department of English and Comparative Literature

Department Chair: Thomas Klammer

Vice Chair: Joseph Sawicki

Department Office: Humanities 715F

Programs Offered

Bachelor of Arts in Comparative Literature

Master of Arts in Comparative Literature

Bachelor of Arts in English

Minor in English

Master of Arts in English

Faculty

Don Austin, Arthur Bell, Diane Bonora,
Rosemary Boston, John Brugaletta,
George Friend, Stephen Garber, Joseph Gilde,
Joan Greenwood, Jean Hall, Mary Hayden,
Jane Hipolito, Robert Hodges, Michael Holland,
Wayne Huebner, Joanne Jasin,
Helen Jaskoski, Dorothea Kenny,
Dorothy Kilker, Thomas Klammer, William Koon,
Judith Leder, Joanne Lewis, Willis McNelly,
Mohsen Mirshafiei, Keith Neilson, Paul Obler,
Urania Petalas, June Pollak, Sally Romotsky,
William Rubinstein, Joseph Sawicki, Muriel Schulz,
John Schwarz, Donald Sears, Howard Seller,
George Spangler, Patricia Thomas, Mary Kay Tirrell,
Martha Vogeler, John White, Helen Yanko

Advisers

Undergraduate: All full-time faculty members serve as advisers.

Graduate, Comparative Literature: Urania Petalas

Graduate, English: Rosemary Boston

Teaching Credential: John White

An annual conference with a faculty adviser is required. New students must confer with an adviser in each of the first two semesters.

INTRODUCTION

The discipline of English includes the study of British and American literature, the various kinds of writing, and the history, structure and dialects of the English language.

The major in English is a flexible program emphasizing skill in writing, familiarity with and appreciation of the literatures of England and America, and knowledge of the nature and development of the English language.

Comparative Literature is the study of world literature without specific regard for national or linguistic boundaries. It is comparative in that it deals with the relationships among different literatures. The comparatist studies not only the international literary masterpieces and historical periods of world literature, but also examines critical theories from a cross-cultural perspective. The major in Comparative Literature promotes the understanding of world literatures and cultures in various historical periods, including the present, for students with a special concern for the relationships among the languages and literatures of various civilizations. Comparative Literature courses are conducted in English, and required reading is available in English.

The study of literature and language helps students to achieve a mature understanding of themselves and the world and to learn to read critically and analytically, write clearly and persuasively, and reason soundly. For these reasons such study is ideal preparation for professional training in fields such as law, medicine, and religion, or for responsible positions in business and industry. The major in English may be combined with preparation for elementary and secondary school teaching. In addition, the majors in English and Comparative Literature provide a foundation for students who intend to work for advanced degrees in preparation for college teaching.

Credential Information

The English Department offers course work leading to a waiver in English for the Ryan Single Subject (secondary) Teaching Credential. Students seeking a Multiple Subjects (elementary) Teaching Credential may choose to major in English and fulfill credential requirements under the Generic Multiple Subjects Waiver Program.

All students interested in majoring in English in preparation for teaching should contact the English Education Coordinator in the English Department.

BACHELOR OF ARTS IN COMPARATIVE LITERATURE

All students must complete a total of 42 units of upper-division courses. In selecting courses, students are urged to consult a faculty adviser.

Required Courses (18 units in Comparative Literature, including Comparative Literature 324, 325, and either 332 or 333)

British and American Literature (6 upper-division units listed under English)

Breadth Requirement (6 adviser-approved units in anthropology, history, art history, music history or philosophy)

Electives (12 upper-division units in literature courses listed under Comparative Literature, English, French, German, Italian, Russian, or Spanish or another adviser-approved foreign language)

Reading Competence in a Foreign Language

This requirement can be met by examination or by successful completion of an adviser-approved 400-level course offered by the Department of Foreign Languages and Literatures, provided it is not taught in translation. Information on the examination is available in the Department of English and Comparative Literature office.

MASTER OF ARTS IN COMPARATIVE LITERATURE

The master's degree program in Comparative Literature promotes the understanding of other literatures, peoples and cultures in various historical periods, including the present, provides background for more advanced degrees, prepares teachers of world literature in the high schools and community colleges and provides a liberal arts background for library studies.

Admission to Graduate Standing: Conditionally Classified

University requirements include a bachelor's degree from an accredited institution and a minimum GPA of 2.5 in the last 60 semester units attempted.

Graduate Standing: Classified

Classified standing requires:

1. An undergraduate major in Comparative Literature, English or foreign language with a GPA of 3.0 or better in the major courses and a GPA of 2.5 in all other college and/or university work. If the student's degree is in another field, a total of 24 units of upper-division work in Comparative Literature, English or foreign language with a GPA of 3.0 will be required.
If the student lacks the prerequisite number of courses, they must be taken before beginning work in the master's degree program, with at least a 3.0 in such makeup course work. If the student's GPA in these probationary courses is 3.0 or better, classified standing may be granted. Courses taken to remove qualitative and quantitative deficiencies may not be applied to the M.A. program.
2. Satisfactory completion of a written examination in an adviser-approved foreign language, or satisfactory completion of an upper-division course taught in an adviser-approved foreign language.
3. Development of an approved study plan.

Study Plan

A minimum of 30 units of course work must be completed with a minimum GPA of 3.0 to be distributed as follows:

1. A minimum of 18 units in 500-series courses:

	Units
Courses at the 500 level in Comparative Literature or courses cross-listed in English (one adviser approved 500-level course in English may help satisfy this requirement)	15
A course at the 500 level in a related area	3
2. Upper division courses (12 units):

Adviser-approved courses in Comparative Literature	6
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Adviser-approved courses in a related area . . . 6
(At least 3 units of related course work
must be in foreign literature, read in the
original language.)

Total. 30

At the conclusion of all course work, the student will take a comprehensive examination for the master's degree. Each section of the four-part comprehensive examination must be passed before the degree will be awarded. Any section(s) failed may be repeated once only. Notice of intention to take the examination must be on file with the graduate secretary within six weeks of the first class of the semester.

Thesis Option

The candidate may elect to write a thesis. For information consult the graduate adviser.

For further information, consult the Department of English and Comparative Literature.

BACHELOR OF ARTS IN ENGLISH

All students must complete a total of 42 units in addition to English 101 or its equivalent. At least 30 units must be upper-division courses. In selecting courses, students are urged to consult a faculty member of the Department of English and Comparative Literature.

Required Courses (9 units)

- English 300 Analysis of Literary Forms (3)
- English 301 Advanced College Writing (3)
- English 334 Shakespeare (3)

Survey Courses (at least 6 units)

- English 311 Masters of British Literature to 1760 (3)
- English 312 Masters of British Literature from 1760 (3)
- English 321 American Literature to Whitman (3)
- English 322 American Literature from Twain to the Moderns (3)
- Comp Lit 324 World Literature to 1650 (3)
- Comp Lit 325 World Literature from 1650 (3)

Period, Genre and Criticism Courses (at least 9 units, including at least 3 units from courses prior to 1800, i.e., 332, 335, 336, 337, 338, 340, 345, 423)

- English 332 Medieval Literature (3)
- English 335 Elizabethan and Jacobean Drama (3)
- English 336 Elizabethan Poetry and Prose (3)
- English 337 17th-Century Poetry and Prose (3)
- English 338 The Drama of the Restoration and the 18th Century (3)
- English 340 Restoration and 18th Century Poetry and Prose (3)
- English 343 The Romantic Movement in English Literature (3)
- English 344 Victorian Literature (3)
- English 345 The Development of the English Novel Through Jane Austen (3)
- English 346 The Development of the 19th Century English Novel (3)

English 391 Traditions of English Literary Criticism (3)

English 423 Early American Literature (3)

English 462 Modern British and American Novels (3)

English 463 Contemporary British and American Novels (3)

English 464 Modern British and American Drama (3)

English 465 Contemporary British and American Drama (3)

English 466 Modern British and American Poetry (3)

English 467 Contemporary British and American Poetry (3)

Major Author Courses (at least 3 units)

English 333 Chaucer (3)

English 341 Milton (3)

Language Courses (at least 3 units)

English 303 Structure of Modern English (3)

English 305 The English Language in America (3)

English 490 History of the English Language (3)

Electives (at least 12 units chosen from English and Comparative Literature courses numbered 201 and above)

MINOR IN ENGLISH

Students must complete a total of 21 units, including 15 units as described below and six units of electives. In selecting courses, students seeking a minor in English should consult a faculty member of the Department of English and Comparative Literature.

Required Courses (9 units)

- English 300 Analysis of Literary Forms (3)
- English 301 Advanced College Writing (3)
- English 334 Shakespeare (3)

Survey Courses (at least 6 units)

- English 311 Masters of British Literature to 1760 (3)
- English 312 Masters of British Literature from 1760 (3)
- English 321 American Literature to Whitman (3)
- English 322 American Literature from Twain to the Moderns (3)
- Comp Lit 324 World Literature to 1650 (3)
- Comp Lit 325 World Literature from 1650 (3)

Electives (at least 6 units chosen from additional English and Comparative Literature courses, with the exception of English 101 and 106.)

Students may take the approved upper division writing course(s) in their majors instead of English 301. They must, however, complete 21 units in English and Comparative Literature.

MASTER OF ARTS IN ENGLISH

The master's degree program in English offers students the opportunity to achieve a multifaceted understanding of literature and language as well as to study particular areas of their own interest. Such ar-

eas include literature, linguistics, creative writing and the teaching of English. The degree is useful to those teaching in high schools or community colleges, to those seeking careers in writing and publishing, and to those intending to take further graduate work.

Admission to Graduate Standing: Conditionally Classified

University requirements include a bachelor's degree from an accredited institution and a minimum GPA of 2.5 in the last 60 semester units attempted.

Graduate Standing: Classified

Classified graduate standing requires a bachelor's degree in English from an accredited institution with at least a 3.0 grade-point average in the major courses *provided that a minimum of 24 units of upper-division course work is included*; or if the student holds a bachelor's degree in another major, 24 units of upper-division course work in English with at least a 3.0 grade-point average must have been completed. If the student lacks the prerequisite number of English courses, they must be made up before beginning work in the master's degree program, with at least a 3.0 in such makeup course work. In the event that the student's GPA in prerequisite English courses is less than 3.0, six to nine units of probationary, adviser-approved course work may be assigned. If the GPA in these probationary courses is 3.0 or better, the student may be classified. Some courses taken to make up qualitative deficiencies may be credited toward the M.A., if completed with a grade of B or better, and if applicable to the student's particular study plan. Courses taken to remove quantitative deficiencies may not be applied to the M.A. program.

A student is required to have two years of one foreign language at the college or university level, an approved foreign language examination, or six units of study in Comparative Literature. If taken as graduate work, these six units may be applied to the master's degree under "units in subjects related to English."

A study plan must be developed and approved for admission to classified graduate standing.

Study Plan	Units
Minimum units in English courses restricted to graduate students (500 series)	18
(with the permission of the graduate adviser, 3 of these 18 units may be taken in a Comparative Literature graduate seminar)	
Units in specified upper-division courses in English	6-12
Maximum units in subjects related to English	6
Total required units	30

To complete the degree requirements, students must pass a written comprehensive examination. Failed parts of the examination may be retaken only once. Notice of intention to take the examination must be on file with the graduate secretary within six weeks of the first class of the semester. With approval, students may substitute a research or creative writing project for one part of the examination.

Note: The student is strongly advised to take the steps necessary for admission to the program before registering for the first graduate courses. Part of the admission process is to confer with the graduate adviser, who will analyze prerequisites and designate those courses which will apply to the degree program. Courses taken by a conditionally classified student do not necessarily apply toward a degree. At the time the student achieves classified standing, no more than nine units of postgraduate course work may be applied to the master's degree program. For further information, consult the Department of English and Comparative Literature.

Comparative Literature Courses

- 110 Literature of the Western World from Ancient through Medieval Times (3)**
(Same as English 110)
- 111 Literature of the Western World from the Renaissance through the 19th Century (3)**
(Same as English 111)
- 112 Modern Literature of the Western World (3)**
(Same as English 112)
- 202 Short Story (3)**
(Same as English 202)
- 203 Introduction to the Novel (3)**
The techniques and structure of representative European and American novels. (Same as English 203)
- 205 Introduction to Drama (3)**
(Same as English 205)
- 206 Introduction to Poetry (3)**
(Same as English 206)
- 257 Writing Haiku (1)**
(Same as English 257)
- 312 The Bible as Literature (3)**
Prerequisite: upper division standing. Literary qualities of biblical literature and the influence of major themes upon Western literary traditions.
- 315 Classical Mythology in World Literature (3)**
Prerequisite: upper division standing. Greek and Roman myths which have been of continuing significance in Western world literature.
- 316 Celtic Mythology and Early Irish Literature (3)**
Early Irish literature and Irish and Welsh mythological literature; comparative and archeological relationships.
- 320 Greek and Roman Literature (3)**
Readings in English translation from the literature of classical Greece and Rome.
- 321 Germanic Mythology and Saga Literature (3)**
Germanic mythology, including comparative myth and archeological relationships, and Icelandic saga.
- 324 World Literature to 1650 (3)**
Prerequisite: upper division standing. Oriental and western literature from the beginning to 1650.

- 325 World Literature from 1650 (3)**
Prerequisite: upper division standing. Oriental and Western literature from 1650 to the present.
- 332 Medieval Literature (3)**
(Same as English 332)
- 333 Literature of the Renaissance (3)**
The Renaissance as a literary movement, from Erasmus to Montaigne and Cervantes.
- 352 African Literature (3)**
(Same as English 352 and Afro-Ethnic Studies 352)
- 355 Images of Women in Literature (3)**
(Same as English 355)
- 360 Irish Literature (3)**
Irish literature from the early Middle Ages to the present.
- 373 Masters of Russian Literature (3)**
Prerequisite: upper division standing. Pushkin, Gogol, Dostoyevsky, Tolstoy, Chekhov and others, and their relationship to Western literature.
- 374 Soviet Literature (3)**
Prerequisite: upper division standing. Soviet peoples' literature from 1918 to the present. Basic trends in literary criticism. Authors studied: Gorky, Blok, Mayakovsky, Zamyatin, A. Tolstoy, Zoshchenko, Sholokhov, Pasternak, Rozov, Ev-tushenko, Voznesensky, and others.
- 424 Chinese Literature (3)**
Prerequisite: upper division standing. Selected translations from the long tradition of Chinese literature, with emphasis on significant literary movements and major authors.
- 426 Japanese Literature (3)**
Prerequisite: upper division standing and English 200 or other appropriate course approved by the instructor. Selected translations of Japanese literature.
- 427 Modern Japanese Fiction (3)**
Major writers and literary movements in 20th-century Japanese fiction.
- 453 The Novel in France and Germany (3)**
Novels in translation; principles of the narrative arts. Goethe, Stendhal, Flaubert, Mann, Kafka, Proust and others.
- 499 Independent Study (1-3)**
- 572 Graduate Seminar: Literary Genres (3)**
(Same as English 572)
- 574 Graduate Seminar: Special Problems in Literature (3)**
(Same as English 574)
- 579 Graduate Seminar: Problems in Criticism (3)**
(Same as English 579)
- 598 Thesis (3)**
- 599 Independent Study (1-3)**

English Courses

For world literature in English translation see courses under Comparative Literature.

- 099 Developmental Writing (3)**
An intensive course in basic writing skills. Designed to prepare students for English 101. Required of, and open only to,

students who score below minimum standard on the English Placement Test (EPT). Degree credit is not awarded for this course. (Same as FL-ED 099)

- 101 Beginning College Writing (3)**
Prerequisite: English 099, a satisfactory score on the English Placement Test, or exemption from the EPT. An introductory course in the fundamentals of expository prose. Emphasizes grammatical and basic rhetorical concepts and practices necessary for successful college writing.
- 103 Critical Reasoning and Writing (3)**
Prerequisite: English 101 or the equivalent. An introduction to thinking skills as they relate to writing skills: constructing logical arguments, writing in conceptual patterns, detecting and avoiding fallacies.
- 105 Introduction to Creative Writing (3)**
Exploratory creative writing with the opportunity to write in various genres. No credit toward the major.
- 106 Writing for ESL Students (3)**
Prerequisite: consent of instructor. Fundamentals of written English for speakers of other languages. Emphasis on idiomatic usage and paragraph structure in written expression.
- 110 Literature of the Western World from Ancient through Medieval Times (3)**
Representative writers and works from the ancient through the medieval world. (Same as Comparative Literature 110)
- 111 Literature of the Western World from the Renaissance through the 19th Century (3)**
Representative writers and works from the Renaissance through the 19th century. (Same as Comparative Literature 111).
- 112 Modern Literature of the Western World (3)**
Representative writers and works of modern literature. (Same as Comparative Literature 112)
- 199 Intensive Writing Review (3)**
Prerequisite: consent of instructor. Restricted to students who have failed the EWP at least twice. Intensive review of the fundamentals of writing expository prose. Meets examination portion of baccalaureate writing requirement. Carries no credit toward graduation.
- 200 Introduction to Literature (3)**
An introduction to the study of fiction, drama and poetry. Concentration on the critical understanding of literary types rather than on their historical development. Carries no credit toward the major.
- 201 Intermediate College Writing (3)**
Recommended: English 101. Techniques of investigation, documentation and organization essential for writing academic papers: the research paper, reports, critiques, essay examinations.
- 202 The Short Story (3)**
The structure and technique of the short story. Critical analysis of selected American and European short stories. (Same as Comparative Literature 202)
- 203 Introduction to the Novel (3)**
(Same as Comparative Literature 203)
- 204 Intermediate Creative Writing (3)**
Recommended: Introduction to Creative Writing, consent of instructor. A course providing experience in creative writing

beyond the introductory level. Emphasis on poetry, the short story, and/or the one-act play.

- 205 Introduction to Drama (3)**
Analysis of individual examples of dramatic literature. (Same as Comparative Literature 205)
- 206 Introduction to Poetry (3)**
Analysis of the various kinds of English poems. (Same as Comparative Literature 206)
- 210 Studies in Literature (3)**
Selected readings and discussion of English and American writers, emphasizing a particular theme, genre, trend or the works of individual writers. Section topics will vary according to the special interests of the instructor.
- 257 Writing *Haiku* (1)**
After a brief study of the development of *haiku* in Japan, students will write and revise *haiku* in English and share them with the class. With consent of instructor, may be repeated for no more than three units of credit. (Same as Comparative Literature 257)
- 300 Analysis of Literary Forms (3)**
The main literary forms—prose fiction, poetry and drama—are studied and analyzed. English majors should schedule this basic course as early as possible.
- 301 Advanced College Writing (3)**
Prerequisite: English 101. An advanced course in writing expository prose. Emphasizes precision in rhetoric and development of individual style by concentration on matters of diction, audience, emphasis and persuasion. Required of English majors seeking a secondary credential.
- 303 The Structure of Modern English (3)**
Prerequisite: junior standing. The grammar of contemporary English. Modern English usage. Required of English majors seeking a secondary credential. Must be taken before student teaching.
- 304 Advanced Creative Writing (3)**
Recommended: Intermediate Creative Writing. Instruction and practice in a workshop setting for the student with some experience in creative writing; emphasis on writing for professional markets. Consult the class schedule to determine instructor's emphasis. May be repeated for credit.
- 305 The English Language in America (3)**
American English, its origins, its regional and social dialects, and its role in American history and in such institutions as schools, corporations, government and the media. (Same as Linguistics 305)
- 311 Masters of British Literature to 1760 (3)**
Prerequisite: upper division standing. Major periods and movements, major authors and major forms through 1760.
- 312 Masters of British Literature from 1760 (3)**
Prerequisite: upper division standing. Major periods and movements, major authors and major forms from 1760 through modern times.
- 320 Literature of the American Indians (3)**
Prerequisite: upper division standing. The prose and poetry of the North American Indian tribes.
- 321 American Literature to Whitman (3)**
Prerequisite: upper division standing. Major writers such as Hawthorne, Poe, Melville, Emerson, Thoreau, Whitman, Dickinson.
- 322 American Literature from Twain to the Moderns (3)**
Prerequisite: upper division standing. Major writers such as Twain, James, Crane, Hemingway, Faulkner, O'Neill, Frost, Eliot.
- 325 American Ballad and Folksong (3)**
Anglo-American balladry and folksong; their historical development, ethnic background and poetical values.
- 326 The American Frontier in Literature (3)**
Prerequisite: any courses in American literature, American studies or American history. Thematic study of American literature as it reflects the changing frontier experience and establishes national myths and symbols.
- 332 Medieval Literature (3)**
Readings in modern English translation from the medieval literature of England and the continent from St. Augustine to Sir Thomas Malory. (Same as Comparative Literature 332)
- 333 Chaucer (3)**
The Canterbury Tales and Chaucer's language. The vocabulary, pronunciation, grammar and syntax of the East Midland dialect of Middle English.
- 334 Shakespeare (3)**
A study of the major plays.
- 335 Elizabethan and Jacobean Drama (3)**
The dramatic tradition in plays by such dramatists as Marlowe, Jonson, Webster, Beaumont and Fletcher.
- 336 Elizabethan Poetry and Prose (3)**
The nondramatic literature of the English Renaissance.
- 337 17th-Century Poetry and Prose (3)**
Nondramatic literature of the period from 1603 to 1660 exclusive of Milton.
- 338 The Drama of the Restoration & the 18th Century (3)**
Representative plays of the Restoration and the 18th century. The development of such dramatic movements as the heroic play, Restoration comedy and sentimental drama.
- 340 Restoration and 18th Century Poetry and Prose (3)**
Major writers such as Butler, Rochester, Dryden, Pepys, Swift, Addison and Steele, Pope, Boswell, Johnson; selected minor writers.
- 341 Milton (3)**
The poetry and prose in the light of Milton's intellectual development.
- 343 The Romantic Movement in English Literature (3)**
Major writers such as Burns, Blake, Wordsworth, Coleridge, Byron, Shelley and Keats.
- 344 Victorian Literature (3)**
Major writers such as Carlyle, Tennyson, Browning, Arnold, Ruskin and Pater.
- 345 The Development of the English Novel through Jane Austen (3)**
The English novel from its beginnings to the 19th century; such novelists as Defoe, Richardson, Fielding, Sterne and Austen.
- 346 The Development of the 19th-Century English Novel (3)**
Major novelists such as the Brontës, Thackeray, Dickens, Eliot and Hardy.

- 348 Horror Fiction (3)**
Horror/occult fiction (or "dark fantasy") from Mary Shelley to the present, including such writers as E. A. Poe, J. S. Le Fanu, Bram Stoker, H. P. Lovecraft, Fritz Leiber and Stephen King.
- 349 Fantasy Fiction (3)**
Fantasy in literature from Ariosto to Brautigan.
- 350 Detective Fiction (3)**
Detective fiction from Edgar Allan Poe to the present, including writers such as Sayers, Christie, Chandler, Hammet and Ross MacDonald.
- 351 Science Fiction (3)**
Science fiction as a literary genre, including future-scene fiction, the utopian novel, the superman/woman novel and short stories.
- 352 African Literature (3)**
Prerequisite: upper division standing. African literature written in the English language; the fiction, poetry and drama of the new nations. (Same as Comparative Literature 352 and Afro-Ethnic Studies 352)
- 353 Cultural Pluralism in American Literature (3)**
Prerequisite: upper division standing. The role of varied cultural groups in the USA as exemplified in American literature. Topics may include Jewish Writers, Images of Immigrants, Asian-American Writers, American Indian literatures, and others. May be repeated with different content for additional credit.
- 354 Linguistics and Literature (3)**
(Same as Linguistics 354)
- 355 Images of Women in Literature (3)**
Prerequisite: upper division standing. Images of women in genres such as autobiography, poetry, drama, novel. Individual sections may treat conventional literary periods or specific cultures. May be repeated with different content for additional credit. (Same as Comparative Literature 355)
- 356 The Literature of Aging (3)**
Prerequisite: upper division standing. Images of aging and old age in various genres (fiction, drama, poetry) drawn from Western and Non-western literatures. Topics include the social position of the aged, the challenge of middle and old age, aging parents, waning health and dying.
- 360 Scientific and Technical Writing**
Open to science and non-science students. Scientific and professional writing and editing, with attention to outlines and abstracts, description, process explanation, instructions, and fundamentals of reports, feasibility studies, proposals, internal memos, and letters.
- 365 Legal Writing (3)**
Advanced compositions stressing logic, reasoning, and legal analysis.
- 423 Early American Literature (3)**
Prerequisite: English 321 or consent of instructor. The literature of colonial and revolutionary America, including the Puritans, 18th century deism and rationalism and the literary antecedents of American democratic thought.
- 433 Children's Literature (3)**
Recommended: English 200, 300, or the equivalent. World literature written primarily for children, including material from the oral tradition, realistic fiction, fantasy and poetry.
- 434 Literature for Junior and Senior High School (3)**
The evaluation, selection, and interpretation of fiction, non-fiction, drama and poetry reflecting the broad range of interest of young people from 12 to 17 years of age.
- 435 Studies in Shakespeare (3)**
Prerequisite: English 334 or consent of instructor. Problems of dramatic structure and artistic meanings.
- 436 Changing Words: History, Semantics and Translation (3)**
(Same as Linguistics 436)
- 462 Modern British and American Novels (3)**
Prerequisite: survey of English, American or world literature; an upper division literature course; or consent of instructor. Modern British and American novels from 1900 to 1950.
- 463 Contemporary Novels in English (3)**
The novel in English since World War II.
- 464 Modern British and American Drama (3)**
Prerequisite: survey of English, American or world literature; an upper division literature course; or consent of instructor. British and American drama from 1900 to 1950.
- 465 Contemporary Drama in English (3)**
Drama in English from 1950 to the present.
- 466 Modern British and American Poetry (3)**
Prerequisite: survey of English, American or world literature; an upper division literature course; or consent of instructor. British and American poetry from 1900 to 1950.
- 467 Contemporary Poetry in English (3)**
Poetry in English from 1950 to the present.
- 490 History of the English Language (3)**
Prerequisite: senior or graduate standing. The historical development of English vocabulary, phonology, morphology and syntax from Indo-European to modern American English.
- 491 Traditions of English Literary Criticism (3)**
Prerequisite: English 300 or consent of instructor. The major English critics, from the Renaissance to the beginning of the 20th century, in relationship to the classical theories of criticism.
- 492 Modern Critical Theory (3)**
Prerequisite: English 300 or consent of instructor. The major movements in 20th-century British and American criticism.
- 497 Peer Tutoring in Writing (1)**
Prerequisite: junior standing. Recommended: English 301 and English 303. Techniques of tutoring student-writers who have problems with English grammar and composition.
- 498 English Internship (3)**
Prerequisites: junior or senior status and consent of faculty supervisor. Experience in the practical application of studies in literature and language to work outside the university. Hours to be specified; enrollment limited; C/NC; no credit toward major.
- 499 Independent Study (1-3)**
Open to advanced students in English with consent of department chair. May be repeated for credit.
- 500 Introduction to Graduate Studies in Literature (3)**
Research techniques, analytical approaches and theories of literature. A course providing basic orientation in graduate literary studies.

571 Graduate Seminar: Major Writers (3)

As appropriate to the specialized research and publication of instructor; major figures such as Shakespeare, Milton, Chaucer, Melville, Twain, Hawthorne, Joyce and Coleridge. May be repeated with different content for additional credit.

572 Graduate Seminar: Literary Genres (3)

As appropriate to the specialized research and publication of instructor; major literary types such as the epic, the novel, the short story, lyric poetry, tragedy, comedy and historical drama. May be repeated with different content for additional credit. (Same as Comparative Literature 572)

573 Graduate Seminar: Cultural Periods (3)

As appropriate to the specialized research and publication of instructor; the literature of a cultural period from Anglo-Saxon to modern times. May be repeated with different content for additional credit.

574 Graduate Seminar: Special Problems in Literature (3)

As appropriate to the specialized research and publication of the instructor; special problems such as influences on literature, including philosophical, religious, scientific, geographic and other ecological viewpoints. May be repeated with different content for additional credit. (Same as Comparative Literature 574)

575 Graduate Seminar: Topics in High School Teaching (3)

Specific topics will vary from semester to semester. May be repeated with different content for additional credit.

579 Graduate Seminar: Problems in Criticism (3)

Historical development and schools of criticism. Individual offerings within this course number may deal with only one aspect of critical problems. May be repeated with different content for additional credit. (Same as Comparative Literature 579)

580 Special Topics in Linguistics (3)

(Same as Linguistics 580)

597 Project (3)

Prerequisite: classified graduate standing. A research paper, a critical study, a portfolio of creative writings, or the results of fieldwork or experiment. Supervising professor and English department graduate studies committee must approve the proposal in advance of registration.

599 Independent Graduate Research (3)

Research projects in areas of specialization beyond regularly offered course work. Oral and written reports. May be repeated with different content for additional credit.

English Education Courses

442 Teaching English in the Secondary School (3)

Prerequisite: admission to teacher education. Principles, methods and materials of teaching English in the secondary school.

449E Externship in Secondary Teaching (3)

Student teaching in the secondary school during the first semester of the teacher preparation program. The candidate plans and teaches assigned lessons during the last third of the semester.

449I Internship in Secondary Teaching (10)

Student teaching in the secondary school during the second semester of the teacher preparation program. The candidate has the same instructional hours of responsibility as the master teacher.

449S Seminar in Secondary Teaching (2)

One afternoon a week the candidate participates in a seminar with the university supervisor.

Environmental Studies Program

Program Coordinator: Stewart Long

Associate Coordinator: Joel Weintraub

Program Office: McCarthy Hall 103

Program Offered

Master of Science in Environmental Studies

Program Council

Gordon Bakken (History), Aileen Baron (Anthropology), Vincent Buck (Political Science), Robert Caddes (Art), Stewart Long (Economics), Michael Mend (Sociology), Merrill Ring (Philosophy), Marvin Rosen (Communications), Prem Saint (Geological Sciences), Michael Steiner (American Studies), Imre Sutton (Geography), Barry Thomas (Science Education), Joel Weintraub (Biological Science), William Van Willis (Chemistry).

Advisers

Program: Stewart Long

Environmental Sciences: Prem Saint

Environmental Policy and Planning: Michael Mend

Environmental Education & Communication: Barry Thomas

INTRODUCTION

Environmental Studies is an interdisciplinary program in human interaction with the environment—cultural as well as natural. Courses integrate knowledge and methods from several disciplines, all of which independently study special aspects of the environment. The program treats the social and cultural aspects of human attempts to exploit, modify and achieve balance with the environment. Curricula include concerns for ecological change, environmental pollution, technological solutions, balanced land utilization, and aspects of planning. The program prepares an individual student for work as a professional in the environmental field, and a student's thesis is the ultimate demonstration of his or her capacity to deal broadly with the environment.

Students select a course of study from one of three areas:

ENVIRONMENTAL SCIENCES—This area deals with the application of physical and biological science principles to environmental issues. Topical concerns include environmental ecology, water and air resources, environmental oceanography and geology. Students in this emphasis should have a strong background in biology, chemistry, earth science, engineering, geology or physics.

ENVIRONMENTAL POLICY AND PLANNING—This area deals with the concepts and method of the social and behavioral sciences as applied to environ-

mental policy and planning. Topical concerns include urban and regional planning, environmental aspects of administration, design, behavior, perception, law and economics. Students in this area may have backgrounds in the social or behavioral sciences and the humanities.

ENVIRONMENTAL EDUCATION AND COMMUNICATION—This emphasis approaches the study of the environment through such related disciplines as communication, biology, earth science and geography. Students require skills of observation, analysis and presentation appropriate for the classroom teacher, the outdoor naturalist or communication specialist. Students in this emphasis area should have a background in natural science, education or communications.

MASTER OF SCIENCE IN ENVIRONMENTAL STUDIES

Admission to Graduate Standing: Conditionally Classified

University requirements include a baccalaureate from an accredited institution and a grade-point average of 3.0 in the last 60 units of undergraduate course work attempted or a minimum grade of B in 9 approved units of graduate course work attempted. In addition, three letters of recommendation are required.

If the student has no background in ecology or quantitative techniques, the student should make up the deficit by taking approved courses offered in the other appropriate departments in consultation with an adviser.

Graduate Standing: Classified

After completion of no more than nine semester units of adviser-approved course work and the development of an approved study plan, the student may apply for classified standing.

Study Plan

The M.S. in Environmental Studies requires the completion of 36 units of adviser-approved course work with a GPA of 3.0 or better. The student's committee should be comprised of three members, representing at least two different fields, with one being a member of the Environmental Studies Council.

1. Environmental Studies Core (9 units)

- 500 Environmental Issues and Approaches (3)
- 510 Environ Evaluation and Protection (3)
- 520 Social Environmental Analysis (3)

A student who can demonstrate competency in any core course subject matter may, with the permission of the graduate program adviser, substitute a suitable three-unit course from another department program.

2. Environmental Studies Electives (6 units)

- 595 Selected Topics in Environmental Problems (3)

- 596 Internship in Environmental Studies (3)
or 599 Independent Graduate Research (3)

3. Thesis 598 (3 units)

4. Cross-Disciplinary Electives Work (18 units)

500-level courses (minimum 6 units), one course in planning and additional courses with the prior approval of the faculty adviser.

For further information, consult the graduate program adviser.

Environmental Studies Courses

500 Environmental Issues and Approaches (3)

Prerequisite: graduate standing or consent of instructor. Discussions of interdisciplinary approaches to environmental problems and research methods. Students prepare seminars and papers on research design for potential thesis topics. Meets graduate writing requirement.

510 Environmental Evaluation and Protection (3)

Prerequisites: Graduate standing in environmental studies or consent of instructor. Environmental parameters (water, air, solid wastes, noise, radiation, etc.). Techniques in monitoring and measurement; effect on human health; environmental quality standards and controls. Demonstrations and field trips.

520 Social Environmental Analysis (3)

Prerequisites: Graduate standing in environmental studies program or consent of instructor. Concepts and methods used by social and behavioral scientists to analyze the built environment, and behavior within environment settings. Such topics as environmental perception, design-behavior research, social impacts, law, growth management, environmental health and research on hazards.

595 Selected Topics in Environmental Problems

Prerequisite: Graduate standing in environmental studies or consent of instructor. Various environmental topics, contemporary or historic, that focus on problems (e.g., noise pollution), institutions (e.g., law, impact assessment) or values (e.g., environmental ethics). Topic chosen and outline will be circulated prior to registration.

596 Internship in Environmental Studies (3)

Prerequisite: Graduate standing in environmental studies program or consent of instructor. Field experience with a governmental or private agency. Seminars and professional experience.

598 Thesis (3)

Prerequisites: classified status in environmental studies program and consent of instructor. Planning, preparation and completion of an acceptable, interdisciplinary thesis. Credit on submission of thesis.

599 Independent Graduate Research (3)

Prerequisite: Graduate standing and consent of instructor and program coordinator. May not be repeated for credit.

Department of Foreign Languages and Literatures

Department Chair: Jacqueline Kiraithe
Department Office: Humanities 835C
Language Laboratory: Humanities 325

Programs Offered

Bachelor of Arts in French

Minor in French

Master of Arts in French

Bachelor of Arts in German

Minor in German

Master of Arts in German

Bachelor of Arts in Spanish

Minor in Spanish

Master of Arts in Spanish

Minor in Portuguese

Master of Science in Education (Teaching English to Speakers of Other Languages)

Certificate in Teaching English to Speakers of Other Languages

In cooperation with the School of Business Administration and Economics the Bachelor of Arts in International Business with a concentration in French, German, Portuguese or Spanish

Faculty

Linda Andersen-Fiala, Oswaldo Arana,
Nancy Baden, Gerald Boarino, Samuel Cartledge,
Ellen Cochrum, Modesto Díaz, Michèle Druon,
Leon Gilbert, Ronald Harmon, Arturo Jasso,
Jacqueline Kiraithe, Walter Kline, Keiji Matsumoto,
Doris Merrifield, Ervie Peña, Marcial Prado,
Charles Shapley, Curtis Swanson, Marjorie Tussing,
Eva Van Ginneken, Stephen Vasari,
Jon Zimmermann

INTRODUCTION

The Department of Foreign Languages and Literatures offers a wide diversity of programs of language study, aimed at meeting the varying needs of today's students.

In our rapidly changing world, it is imperative that we lower the barriers that impede understanding. Communicating effectively in a foreign language is not, however, simply an exercise in the acquisition of linguistic skills. In learning another language we also gain insight into the thinking of another culture (often very different from our own), insights which afford us the perspective necessary to examine critically our own cultural values. In our department we view language, culture and literature as integrally-related facets of the complex phenomenon of communication which help us to better understand each other and our roles in the ever-changing process of civilization.

Our department has well-established baccalaureate and master's programs in French, German and Spanish. Additionally, we offer a postbaccalaureate program leading to a Certificate in Teaching English as a Second Language and an M.S. in Teaching English to Speakers of Other Languages (TESOL). Beyond our degree and certificate programs we offer minors in French, German, Spanish and Portuguese as well as three years of Japanese instruction. Lower-division programs are available in Chinese (Mandarin), Greek (Koine), Hebrew, Italian, and Latin. Other languages, such as Arabic and Vietnamese, may be offered when there is sufficient student demand.

Majors and/or minors in Foreign Languages and Literatures are designed for students who are planning a teaching career at the elementary or secondary level, those wishing to pursue more advanced studies in the language and literature of their field, or the growing number of individuals who will find foreign language ability and sensitivity to other cultures an increasingly important adjunct career skill. Such individuals will include students planning careers in social services, the foreign service, translation services, literary fields, international finance and banking and the rapidly expanding world of international business. Our goal is to assist students in perfecting their foreign language skills (all courses except Greek and Latin are taught in the target language), to deepen their knowledge about language and the humanities by reading representative authors in its literature, and to familiarize them with the cultural tradition of the people whose language they are studying.

CREDENTIAL INFORMATION

French, German and Spanish offer waiver programs approved by the State of California for the Ryan Single Subject Credential. French, German and Spanish majors may also follow the approved waiver program for the Multiple Subject Credential (Ryan). Students should contact the departmental Foreign Language Teacher Education Committee for details.

Students interested in applying to a teacher education credential or a certificate program must consult with a teacher education adviser for a preliminary program review in the semester prior to application to the program. Information concerning the programs is available from the Department of Foreign Languages and Literatures.

Before being admitted to a credential program, all prospective teachers may be asked to pass a profi-

ciency examination in which their skills of listening, speaking, reading, writing and knowledge of linguistic principles will be tested. Students should inquire at the department office for current information.

SPECIAL PROGRAM INFORMATION

Language Concentration for International Business

The Department of Foreign Languages and Literatures offers a language concentration for the International Business major consisting of 12 units of upper-division language study. For description of the international business program, please see School of Business Administration in this catalog.

International Programs

In accordance with recommendations made by the Modern Language Association of America, the Department of Foreign Languages and Literatures encourages all majors interested in a teaching career to participate in a study-abroad program. Such programs facilitate student mastery of the language and will afford additional insights into the foreign culture. The California State University's International Programs offers a wide variety of study opportunities on the junior, senior and graduate level.

Language majors are required to complete the following minimum of courses on campus before departure for, or upon return from, overseas:

- A. for the B.A.: 12 units of upper-division courses consisting of a minimum of nine units at the 400 level in the major
- B. for the M.A.: 15 units consisting of a minimum of 12 units at the 500 level in the area of specialization.

THE CSU/UCLA COOPERATIVE PROGRAM IN FOREIGN LANGUAGES AND LITERATURES

The Cooperative Program in Foreign Languages and Literatures gives students the opportunity, without additional fees, to take courses in foreign languages not available on this campus or any neighboring CSU campus but offered at UCLA. For information regarding enrollment and qualifications, interested students should inquire at this office.

The Language Laboratory

Students enrolling in courses 101, 102, 203, 204 are required, in addition to the regular class periods, to practice in the language laboratory. The 36-station laboratory operates like a library; students may use it at a time most convenient to them, preferably every day in sessions of 15 to 30 minutes. Further details will be announced by each instructor and by the supervisor of the language laboratory.

Students are invited to make use of the collection of literary and cultural recordings in French, German, Portuguese, Russian and Spanish available in the language laboratory.

Advisers

Undergraduate: All faculty members serve as advisers. Students may check at the department office to determine which faculty member has been assigned.

Foreign Language Teacher Education and TESOL: Nancy Baden, Samuel Cartledge, Ronald Harmon, Marjorie Tussing, Jon Zimmermann.

Graduate: Charles Shapley (M.A. in French), Jon Zimmermann (M.A. in German), Arturo Jasso (M.A. in Spanish), Jon Zimmermann (M.S. in Education—TESOL).

Placement:

Students may enroll at any point in the sequence of courses for which their previous study and/or experience prepares them. Students with no language background should enroll in fundamental 101-level courses. Normally, two years of high school language study are counted as one year of college language. Students just completing two years of high school language should probably begin at 200-level intermediate courses. A minimum of four years of high school language, or its equivalent, is considered a prerequisite for more advanced 300-level major work. Due to the sequential nature of language instruction, consultation with an adviser in the Department of Foreign Languages and Literatures is strongly recommended before enrolling.

Transfer Students:

In accordance with university rules, all transfer students must complete 30 units in residence at Cal State Fullerton. Of these 30 units, the transfer student majoring in French, German or Spanish is required to complete 12 upper-division units, i.e., 300, 400 or 500-level courses, in the major on the Cal State Fullerton campus. The specific courses will be determined in consultation with the student's adviser and approved by the chair.

Upper-Division Writing Requirement

English 301 satisfies the course portion of the upper-division writing requirement for all foreign language majors.

BACHELOR OF ARTS IN FRENCH

Basic Requirements (20 units)

Each of the following courses or their equivalent

- French 101 Fundamental French-A (5)
- French 102 Fundamental French-B (5)
- French 203 Intermediate French-A (3)
- French 204 Intermediate French-B (3)
- French 230 Intermediate Diction and Phonetics (2)
- French 240 Intermediate Conversation and Composition (2)

Upper-Division Requirements (a total of 33 upper-division units) (21 units required as listed below)

- English 301 Advanced College Writing (3)
- French 315 Origins of Modern France (3)
- French 317 Advanced Composition and Grammar (3)
or French 318 Advanced Composition and Grammar (3)
- French 325 Contemporary French Civilization (3)
- French 375 Introduction to Literature (3)
- French 415 French Classicism (3)

French 425 French Romanticism (3)

Plus in consultation with an adviser, choose two from the following Seminars in XXth Century French Literature: (6 units required)

- French 475A Exploration of the Self (3)
- French 475B In Search of the Real (3)
- French 475C The Individual and Society (3)
- French 475D Beyond Despair (3)

Plus in consultation with an adviser, choose two from the following electives: (6 units required)

- French 300 French Conversation (3)
- French 310 French in the Business World (3)
- French 311 French for International Business (3)
- French 317 Advanced Composition and Grammar (3)
or French 318 Advanced Composition and Grammar (3)
- French 385 Techniques of French-English Translation (3)
- French 407 French Film (3)
- French 466 Introduction to French Linguistics (3)
- French 475 Seminar in XXth Century Literature (3-6)
- French 485 Senior Seminar in French Literature (3)

MINOR IN FRENCH

Basic Requirements (20 units)

Each of the following courses or their equivalent.

- French 101 Fundamental French-A (5)
- French 102 Fundamental French-B (5)
- French 203 Intermediate French-A (3)
- French 204 Intermediate French-B (3)
- French 230 Intermediate Diction and Phonetics (2)
- French 240 Intermediate Conversation and Composition or equivalent (2)

Upper-Division Requirements (a total of 12 units) (6 units required from these courses)

- French 315 Origins of Modern France (3)
or French 325 Contemporary French Civilization (3)
- French 317 Advanced Composition and Grammar (3)
or French 318 Advanced Composition and Grammar (3)

Plus in consultation with an adviser, choose two additional courses from the following: (6 units required)

- French 300 French Conversation (3)
- French 310 French in the Business World (3)
- French 311 French for International Business (3)
- French 315 Origins of Modern France (3)
or French 325 Contemporary French Civilization (3)
- French 317 Advanced Composition and Grammar (3)
or French 318 Advanced Composition and Grammar (3)
- French 375 Introduction to Literature (3)

- French 385 Techniques of French-English Translation (3)
- French 407 French Film (3)
- French 415 French Classicism (3)
- French 425 French Romanticism (3)
- French 466 Introduction to French Linguistics (3)
- French 475A Exploration of the Self (3)
- French 475B In Search of the Real (3)
- French 475C The Individual and Society (3)
- French 475D Beyond Despair (3)
- French 485 Senior Seminar in French Literature (3)

BACHELOR OF ARTS IN GERMAN

Basic Requirements (20 units)

Each of the following courses or their equivalent.

- German 100A-K Personalized Instruction in Fundamental German (3-10)
- German 101 Fundamental German-A
- German 102 Fundamental German-B (5)
- German 203 Intermediate German-A (3)
- German 204 Intermediate German-B (3)
- German 213 Intermediate Reading (2)
- German 214 Intermediate Reading (2)

Upper-Division Requirements (a total of 33 upper-division units) (18 units required as listed below)

- English 301 Advanced College Writing (3)
- German 315 Introduction to German Civilization (3)
- German 317 Advanced Conversation and Composition (3)
- German 325 Current Trends in Culture of German-Speaking Peoples (3)
- German 375 Intro to Literary Forms (3)
- German 399 German Phonetics (3)

Plus in consultation with an adviser, choose three of the following literature courses (9 units required):

- German 430 German Literature and Culture to the Baroque (3)
- German 440 18th-Century German Literature and Culture (3)
- German 450 19th-Century German Literature and Culture (3)
- German 460 20th-Century German Literature and Culture (3)
- German 482 German Literature & Culture in Film (3)

Plus in consultation with an adviser, choose two courses from the following (6 units required):

- German 300 German Conversation (3)
- German 310 German in the Business World (3)
- German 311 German for International Business (3)
- German 401 Advanced Conversation Practice and Vocabulary Expansion (3)
- German 466 Introduction to German Linguistics (3)
- German 485 Senior Seminar in German Literature (3)

MINOR IN GERMAN

Basic Requirements (20 units)

Each of the following courses or their equivalent.

- German 101 Fundamental German-A (5)
- German 102 Fundamental German-B (5)
- German 203 Intermediate German-A (3)
- German 204 Intermediate German-B (3)
- German 213 Intermediate Reading (2)
- German 214 Intermediate Reading (2)

Upper-Division Requirements (12 units) (6 units required from this section)

- German 317 Advanced Conversation & Composition (3)
- German 315 Introduction to German Civilization (3)
- or German 325 Current Trends in Culture of German Speaking Peoples (3)

Plus in consultation with an adviser, choose two additional courses from the following (6 units required):

- German 300 German Conversation (3)
- German 310 German in the Business World (3)
- German 311 German for International Business (3)
- German 315 Introduction to German Civilization (3)
- German 375 Introduction to Literary Forms (3)
- German 399 German Phonetics (3)
- German 401 Advanced Conversation Practice and Vocabulary Expansion (3)

BACHELOR OF ARTS IN SPANISH

Basic Requirements (20 units)

Each of the following courses or their equivalent.

- Spanish 101 Fundamental Spanish-A (5)
- Spanish 102 Fundamental Spanish-B (5)
- Spanish 203 Intermediate Spanish-A (3)
- Spanish 204 Intermediate Spanish-B (3)
- Spanish 213 Intermediate Conversation (2)
- Spanish 214 Intermediate Composition (2)

Upper-Division Requirements (33 units)

A. Literature Emphasis

- English 301 Advanced College Writing (3)
- Spanish 315 Intro to Spanish Civilization (3)
- Spanish 316 Introduction to Spanish-American Civilization (3)
- Spanish 317 Advanced Conversation and Composition (3)
- Spanish 375 Introductory to Literary Forms (3)
- Spanish 400 Spanish for Advanced Students (3)
- Spanish 430 Spanish Lit to Neoclassicism (3)
- or Spanish 461 Spanish Literature Since Neoclassicism (3)
- Spanish 441 Spanish-American Literature (3)
- Spanish 466 Intro to Spanish Linguistics (3)
- Spanish 467 Dialectology (3)
- or Spanish 468 Spanish-English Contrastive Analysis (3)

Plus in consultation with an adviser, choose one from the following electives:

- Spanish 300 Spanish Conversation (3)
- Spanish 415 Contemporary Spanish Culture (3)
- Spanish 416 Contemporary Spanish-American Culture (3)
- Spanish 430 Spanish Literature to Neoclassicism (3)
- Spanish 461 Spanish Literature Neoclassicism (3)
- Spanish 475 Senior Seminar: Topics in Spanish Peninsular Literature (3)
- Spanish 485 Senior Seminar: Topics in Spanish-American Literature (3)

B. Linguistics Emphasis (33 units required)

- English 301 Advanced College Writing (3)
- Spanish 315 Intro to Spanish Civilization (3)
- Spanish 316 Introduction to Spanish-American Civilization (3)
- Spanish 317 Advanced Conversation and Composition (3)
- Spanish 375 Introduction to Literary Forms (3)
- Spanish 400 Spanish for Advanced Students (3)
- Spanish 466 Intro to Spanish Linguistics (3)
- Spanish 467 Dialectology (3)
- Spanish 468 Spanish-English Contrast Analysis (3)

Plus in consultation with an adviser, choose two (one of which must be literature) from the following electives:

- Spanish 300 Spanish Conversation (3)
- Spanish 415 Contemporary Spanish Culture (3)
- Spanish 416 Contemp Spanish-American Culture (3)
- Spanish 430 Spanish Literature to Neoclassicism (3)
- Spanish 441 Spanish-American Literature (3)
- Spanish 461 Spanish Lit Since Neoclassicism (3)
- Spanish 475 Senior Seminar: Topics in Spanish Peninsular Literature (3)
- Spanish 485 Senior Seminar: Topics in Spanish-American Literature (3)

MINOR IN SPANISH

Basic Requirements (20 units)

Each of the following courses or their equivalent.

- Spanish 101 Fundamental Spanish-A (5)
- Spanish 102 Fundamental Spanish-B (5)
- Spanish 203 Intermediate Spanish-A (3)
- Spanish 204 Intermediate Spanish-B (3)
- Spanish 213 Intermediate Conversation (2)
- Spanish 214 Intermediate Composition (2)

Upper-Division Requirements (12 units)

Six units required from the following.

- Spanish 315 Introduction to Spanish Civilization (3)
- or Spanish 316 Introduction to Spanish-American Civilization (3)

- Spanish 317 Advanced Conversation and Composition (3)

Plus in consultation with an adviser, choose two additional upper-division courses from the following:

- Spanish 300 Spanish Conversation (3)
- Spanish 375 Introduction to Literary Forms (3)
- Spanish 400 Spanish for Advanced Students (3)
- Spanish 415 Contemp Spanish Culture (3)
- Spanish 416 Contemp Spanish-American Culture (3)
- Spanish 430 Spanish Literature to Neoclassicism (3)
- Spanish 441 Spanish-American Literature (3)
- Spanish 466 Introduction to Spanish Linguistics (3)
- Spanish 467 Dialectology (3)
- Spanish 468 Spanish-English Contrastive Analysis (3)
- Spanish 475 Senior Seminar: Topics in Spanish Peninsular Literature (3)
- Spanish 485 Senior Seminar: Topics in Spanish-American Literature (3)

MINOR IN PORTUGUESE

Basic Requirements—(8 units)

Each of the following courses or their equivalent.

- Portuguese 101 Fundamental Portuguese-A (4)
- Portuguese 102 Fundamental Portuguese-B (4)

Upper-Division Requirements (12 units)

- Portuguese 317 Advanced Conversation and Composition (3) or
- Portuguese 310 Portuguese on the Business World (3)
- Portuguese 320 Introduction to Luso-Brazilian Culture and Civilization (3)
- or Portuguese 325 Contemporary Brazilian Civilization (3)

Plus in consultation with an adviser, choose two additional courses from the following:

- Portuguese 317 Advanced Conversation and Composition (3)
- or Portuguese 310 Portuguese in the Business World (3)
- Portuguese 320 Introduction to Luso-Brazilian Culture and Civilization (3)
- Portuguese 325 Contemporary Brazilian Civilization (3)
- Portuguese 431 Portuguese Literature (3)
- Portuguese 441 Brazilian Literature (3)

CERTIFICATE FOR TEACHERS OF ENGLISH AS A SECOND LANGUAGE

In cooperation with the Departments of English and Linguistics, the Department of Foreign Languages and Literatures offers a Certificate for Teachers of English as a Second Language (TESOL). The program consists of 24 units, some of which (with consent of the admitting committee) may be taken dur-

ing the candidate's undergraduate study. In order to participate in the program, students must declare the TESOL Certificate along with their degree objective.

Admission Requirements

1. Senior standing or admission to either postbaccalaureate or graduate standing.
2. Overall GPA of 2.5 (minimal) and 3.0 in the major.
3. Completion of English 301 and 303 with grades of B or better.
4. At least two years of one foreign language or one year each of two different languages or the equivalent. This requirement will normally be waived for students from foreign countries who have studied English as a foreign language.
5. An interview to determine oral proficiency in English at the time of application.
6. Consent of the admitting committee to enter the program and to develop a study plan.

Required Core Courses

- a. Contrastive Analysis—one of the following:
 - Spanish 468 Spanish-English Contrast Analysis (3)
 - or Foreign Language Education 468 TESOL Contrastive Analysis (3)
- b. Methods
 - (It is highly recommended that French, Spanish, German 466 or Linguistics 406 be taken prior to 443A and B.)
 - Foreign Language Education 443A Principles of Teaching English to Speakers of Other Languages (3)
 - Foreign Language Education 443B Principles of Teaching English to Speakers of Other Languages (3)
- c. Practicum—one of the following:
 - For Lang Ed 596 TESOL Practicum (fieldwork) (3)
 - To be taken at the end of the program. Students must consult with an adviser the semester before the practicum. Prerequisites are Foreign Language Education 443A, 443B, Spanish 468 or Foreign Language Education 468.
 - or Ling 596 TESOL Practicum (fieldwork) (3)

All core courses must be completed with a grade of B or better to undertake fieldwork.

Electives (12 units required)

(To be completed from each of the following areas of concentration)

- a. English elective (3 units)
 - English 305 The English Lang in America (3)
 - English 490 History of the English Lang (3)
- b. Foreign Language elective (3 units)
 - Spanish 466 Introduction to Spanish Linguistics (3)
 - French 466 Intro to French Linguistics (3)
 - German 466 Introduction to German Linguistics (3)

Spanish 467 Dialectology: Current Trends in Modern Spanish (3)

Foreign Language Education 527 Theory of Bilingual Language Acquisition (3)

or an adviser-approved substitute for those who do not have sufficient foreign language prerequisites or whose foreign language is English

c. Linguistics elective (3 units)

Linguistics 351 Introduction to Linguistic Phonetics and Phonology (3)

Linguistics 403 Speech and Language Development (3)

Linguistics 406 Descriptive Linguistics (3)

Linguistics 505 Phonology Analysis (3)

Linguistics 507 Grammatical Analysis (3)

Linguistics 508 Theories of Syntax (3)

d. Other electives: (3 units)

A 400-to 500-level course in elective areas a-c, or student may choose one elective from any of the following: American studies, American literature, American governmental institutions, anthropology, speech communication or other applicable courses in foreign languages and linguistics with the certificate adviser's approval.

MASTER OF ARTS IN FRENCH

Admission to Graduate Standing: Conditionally Classified

University requirements include a baccalaureate from an accredited institution and a grade-point average of at least 2.5 in the last 60 semester units attempted. See the section of this catalog on admission of graduates for the complete statement and procedures.

Graduate Standing: Classified

A student who meets the requirements for conditionally classified graduate standing, as well as the following requirements may be granted classified graduate standing upon the development of an approved study plan: a major in French consisting of 24 units (or equivalent) of upper-division studies with above-average scholarship. (A candidate presenting a B.A. which has fewer than 24 upper-division units in the language, or is otherwise inadequate, will be required to take additional courses to build a full undergraduate major before beginning the graduate program.) The student must also demonstrate proficiency in English, either by examination or a three-unit upper-division course in English grammar.

Adaptations of certain admission requirements may be made for promising foreign students.

Study Plan

The study plan consists of 30 units of graduate study (at least 15 in 500-level courses), distributed as follows:

Core Course (3 units)

French 500 Graduate Seminar: Advanced Structure and Style (3)

Linguistics Seminar (3 units)

- French 520 Graduate Seminar: Old French (3)
 or French 530 Graduate Seminar: Historical
 Linguistics (3)

Literature seminars chosen from the following
 (9 units)

- French 557 Graduate Sem: French Poetry (3)
 French 571 Graduate Sem: French Prose (3)
 French 575 Graduate Sem: French Drama (3)
 French 576 Graduate Sem: Major Writers (3)

Additional electives to be chosen in consultation
 with the graduate adviser (15 units) (A maximum of
 six units may be taken, with approval of the adviser,
 in a related field, at the 300-400- or 500-level.)

- French 407 French Film (3)
 French 466 Introduction to French
 Linguistics (3)
 French 475A Exploration of the Self (3)
 French 475B In Search of the Real (3)
 French 475C The Individual and Society (3)
 French 475D Beyond Despair (3)
 French 485 Senior Seminar in French
 Literature (3)
 French 520 Graduate Seminar: Old French (3)
 French 530 Grad Sem: Hist Linguistics (3)
 French 557 Grad Seminar: French Poetry (3)
 French 571 Grad Seminar: French Prose (3)
 French 575 Grad Seminar: French Drama (3)
 French 576 Grad Seminar: Major Writers (3)
 French 598 Thesis (3-6)
 French 599 Independent Graduate Research
 (1-3)

In addition, a candidate must complete a: (1) Biblio-
 graphic Project, and (2) Reading Project. Final eval-
 uation is by a comprehensive written and oral exami-
 nation, including fluency in the French language. The
 candidate may, with the approval of the graduate
 committee, repeat the examination, but once only,
 within two years.

For further information, consult the Department of
 Foreign Languages and Literatures.

MASTER OF ARTS IN GERMAN

Admission to Graduate Standing: Conditionally Classified

University requirements include a baccalaureate
 from an accredited institution and a grade-point av-
 erage of at least 2.5 in the last 60 semester units at-
 tempted. See the section of this catalog on admis-
 sion of graduates for the complete statement and
 procedures.

Graduate Standing: Classified

A student who meets the requirements for condition-
 ally classified graduate standing, as well as the fol-
 lowing requirements, may be granted classified
 graduate standing upon the development of an ap-
 proved study plan: a major in German consisting of
 24 units (or equivalent) of upper-division studies with
 above-average scholarship. (A candidate present-
 ing a B.A. which has fewer than 24 upper-division

units in the language, whose background or is other-
 wise inadequate, normally will be required to take
 additional courses to build a full undergraduate ma-
 jor before beginning the graduate program.) The stu-
 dent must also demonstrate proficiency in English,
 either by examination or a three-unit upper-division
 course in English grammar. Adaptations of certain
 admission requirements may be made for promising
 foreign students.

Study Plan

The study plan requires 30 units of graduate study
 (at least 15 in 500-level courses), distributed as fol-
 lows:

1. Core Courses (6 units)

- German 500 Graduate Seminar: Advanced
 Structure and Style or Substitute (3)
 German 530 Graduate Seminar: Historical
 Linguistics or substitute (3)

2. Graduate seminars in literature (9-12 units)

- German 571 Graduate Seminar: German Lit (3)
 German 576 Graduate Sem: Major Writers (3)

3. Other electives if not taken as an undergraduate (12-15 units)

- German 430 German Literature and Culture
 to the Baroque (3)
 German 440 18th-Century German Literature
 and Culture (3)
 German 450 19th-Century German Literature
 and Culture (3)
 German 460 20th-Century German Literature
 and Culture (3)
 German 482 German Literature and Culture in
 Film (3)
 German 485 Senior Seminar in German
 Literature (3)*
 German 499 Independent Study (1-3)
 German 598 Thesis (3-6)
 German 599 Independent Graduate Research
 (1-3)

*Variable topic course may be taken again for credit.

With the approval of the graduate committee, a stu-
 dent may substitute a thesis for some of the units re-
 quired in Section 3. A reading list must be covered
 by all students. Final evaluation is by a comprehen-
 sive written and oral examination, including fluency
 in the German language. The candidate may, with
 the approval of the graduate committee, repeat the
 examination, but once only, within two years.

For further information, consult the Department of
 Foreign Languages and Literatures.

MASTER OF ARTS IN SPANISH

Admission to Graduate Standing: Conditionally Classified

University requirements include a baccalaureate
 from an accredited institution and a grade-point av-
 erage of at least 2.5 in the last 60 semester units at-
 tempted. See the section of this catalog on admis-
 sion of graduates for the complete statement and
 procedures.

Candidates will need a B.A. in Spanish consisting of at least 24 units (or equivalent) of upper-division studies with above average scholarship. (A candidate presenting a bachelor of arts which has fewer than 24 upper-division units in the language, or whose background is otherwise inadequate, will be required to take additional courses to build a full undergraduate major before beginning the graduate program.) The student must also demonstrate proficiency in English, either by examination or a three-unit upper-division course in English grammar.

Students selecting the Bilingual Studies option may have a B.A. in a related field with at least 18 units of upper-division Spanish with a minimum GPA of 3.0, AND one of the following:

- six additional units of 400-level Spanish courses with a minimum GPA of 3.0; or*
- six units of approved 400-level Chicano Studies or Latin American Studies courses with a minimum GPA of 3.0; or
- successful completion of placement examination testing knowledge of Hispanic literature, language and culture.

Satisfactory evaluation of language proficiency by committee is also required. Adaptations of certain admission requirements may be made for promising foreign students.

Graduate Standing Classified

A student who meets the requirements for conditionally classified graduate standing is eligible for classified graduate standing upon the development of an approved study plan, which should be done in consultation with the graduate advisor prior to the completion of nine graduate units.

Study Plan

The study plan consists of 30 units of graduate study (at least 15 in 500-level courses), distributed as follows:

Spanish: Standard Plan

1. Core courses (6 units)
 - Spanish 500 Graduate Seminar: Advanced Structure and Style or substitute (3)
 - Spanish 530 Graduate Seminar: Historical Linguistics (3)
2. Graduate seminars in literature (9 units). Courses in both Peninsular and Spanish-American literature chosen from the following:
 - Spanish 556 Grad Sem: Spanish Poetry (3)
 - Spanish 557 Grad Sem: Spanish-American Poetry (3)
 - Spanish 567 Grad Sem: Spanish-American Novel (3)
 - Spanish 571 Grad Sem: Spanish Prose (3)
 - Spanish 575 Grad Sem: Spanish Drama (3)
 - Spanish 576 Grad Sem: Hispanic Topics (3)
3. Other electives (15 units). Courses may be chosen from the following 400- or 500-level courses (up to 6 of the 15 units may be taken, with the approval of the adviser, in a related field):
 - Spanish 415 Contemp Spanish Culture (3)
 - Spanish 416 Contemporary Spanish-American Culture (3)
 - Spanish 430 Spanish Lit to Neoclassicism (3)

- Spanish 441 Spanish-American Literature (3)
- Spanish 461 Spanish Literature Since Neoclassicism (3)
- Spanish 466 Intro to Spanish Linguistics (3)
- Spanish 467 Dialectology (3)
- Spanish 468 Spanish-English Contrast Analysis (3)
- Spanish 475 Senior Seminar: Topics in Spanish Peninsular Literature (3)
- Spanish 485 Senior Seminar: Topics in Spanish-American Literature (3)
- Spanish 556 Grad Sem: Spanish Poetry (3)
- Spanish 557 Graduate Seminar: Spanish-American Poetry (3)
- Spanish 567 Grad Seminar: Spanish-American Novel (3)
- Spanish 571 Grad Sem: Spanish Prose (3)
- Spanish 575 Grad Sem: Spanish Drama (3)
- Spanish 576 Grad Sem: Hispanic Topics (3)

Spanish: Bilingual Studies emphasis

1. Core courses (6 units)
 - Spanish 500 Graduate Seminar: Advanced Structure and Style or equivalent (3)
 - FLL Ed 527 Theory of Bilingual Acquisition (3)
2. Literature Courses (9 units, 6 of which must be at 500-level) chosen from the following. Must include one course in Peninsular literature and one in Spanish-American literature.
 - Spanish 430 Spanish Lit to Neoclassicism (3)
 - Spanish 441 Spanish-American Literature (3)
 - Spanish 461 Spanish Literature Since Neoclassicism (3)
 - Spanish 475 Senior Seminar: Topics in Spanish Peninsular Literature (3)
 - Spanish 485 Senior Seminar: Topics in Spanish-American Literature (3)
 - Spanish 556 Grad Sem: Spanish Poetry (3)
 - Spanish 557 Graduate Seminar: Spanish-American Poetry (3)
 - Spanish 567 Graduate Seminar: Spanish-American Novel (3)
 - Spanish 571 Grad Sem: Spanish Prose (3)
 - Spanish 575 Grad Sem: Spanish Drama (3)
 - Spanish 576 Grad Sem: Hispanic Topics (3)
3. Culture Courses (9 units, 3 of which must be at 500-level) chosen from the following:
 - Spanish 415 Contemp Spanish Culture (3)
 - Spanish 416 Contemporary Spanish-American Culture (3)
 - Spanish 576 Grad Sem: Hispanic Topics (3)
 - Chicano 403 Cultural Differences in Mexico and the Southwest (3)
 - Chicano 431 The Chicano Child (3)
 - Chicano 432 The Chicano Adolescent (3)
 - Chicano 438 Issues in Bilingual/Cross-Cultural Education (3)
 - Chicano 440 Mexican Intellectual Thought (3)
 - Chicano 445 History of the Chicano (3)
 - Chicano 450 The Chicano and Contemporary Issues (3)
 - Chicano 453 Mexico Since 1906 (3)

4. Electives (6 units)
 - a. Linguistics (3 units) chosen from the following:
 - Spanish 466 Intro to Spanish Linguistics (3)
 - Spanish 467 Dialectology: Current Trends in Modern Spanish (3)
 - Spanish 468 Spanish-English Contrastive Analysis (3)
 - Spanish 530 Graduate Seminar: Historical Linguistics (3)
 - b. Other (3 units) chosen in consultation with adviser. May be in a related field.

With the approval of the graduate committee, a student may substitute a thesis for some of the units required under Section 3. A reading list must be covered by all students. Final evaluation is by a comprehensive written and oral examination, including fluency in the Spanish language. The candidate may, with the approval of the graduate committee, repeat the examination, but once only within two years.

For further information, consult the Department of Foreign Languages and Literatures.

MASTER OF SCIENCE IN EDUCATION CONCENTRATION IN TEACHING ENGLISH TO SPEAKERS OF OTHER LANGUAGES

This program is multi-disciplinary, involving study in the fields of English, linguistics, language acquisition, anthropology and professional education in order to provide the candidate with the requisite knowledge for success as an ESL teacher, resource specialist or program coordinator. Thirty units are required.

Admission to Graduate Standing: Conditionally Classified

University requirements include: a baccalaureate degree from an accredited institution with a grade-point average of at least 2.5 in the last 60 semester units attempted (see "Graduate Regulations", for complete statement and procedures). In addition, the candidate must have a 3.0 grade-point average in the major.

Prerequisites

1. Two years of one foreign language, or one year each of two foreign languages with an average 3.0 GPA;
 2. English 301 and 303 with a grade of B or better;
 3. One of the following: English 300, 311, 312, 321, 322 or an equivalent survey of English or American literature with a grade of B or better;
 4. Linguistics 406 with a grade of B or better;
 5. Oral and written proficiency in English to be determined at time of application.
- A. Core Courses (15 units)
- FL Ed 443A Principles of Teaching English to Speakers of Other Languages (emphasis on aural/oral language) (3)
 - FL Ed 443B Principles of Teaching English to Speakers of Other Languages (3)
 - (emphasis on reading and written language)
 - FL Ed 527 Theory of Bilingual Language Acquisition (3)

- FL Ed 560 Second Language Assessment (3)
- FL Ed 595 Curriculum and Program Design for TESOL (3)

B. Electives (12 units required)

Choose no more than six of which may be at the 300-level and three of which must be at the 500-level from at least three of the following four categories in consultation with the adviser:

1. Culture
 - Amer Studies 301 The American Character (3)
 - American Studies 345 American Dream (3)
 - Anthropology/Linguistics 300 Language and Culture (3)
 - Anthropology 360 Contemporary American Culture (3)
 - Anthropology 450 Culture and Education (3)
2. Linguistics
 - French, German, Spanish 466 Introduction to French, German or Spanish Linguistics (3)
 - FL Ed 468 TESOL Contrastive Analysis (3)
 - Spanish 468 Spanish-English Contrastive Analysis (3)
 - Linguistics 351 Introduction to Linguistic Phonetics and Phonology (3)
 - Linguistics 436 Changing Worlds (3)
 - Linguistics 505 Phonological Analysis (3)
 - Linguistics 507 Grammatical Analysis (3)
 - Linguistics 508 Theories of Syntax (3)
 - Linguistics 580 Special Topics in Linguistics (3) (subject to adviser's approval of topics)
 - Psych/Ling 417 Psycholinguistics (3)
3. English and Speech Communication
 - English/Ling 305 The English Language in America (3)
 - English 490 History of the English Lang (3)
 - A 400-or 500-level English or American Literature or language Courses (3)
 - Speech Comm 320 Intercultural Comm (3)
4. Professional Education
 - Ed Elem 454 Bilingual Education in the United States (3)
 - Ed Sec 509 Construction Analysis and Interpretation of Educational Tests (3)
 - Ed Elem 529 Graduate Studies: Learning Theory for Classroom Use (3)
 - Ed Elem 530 Graduate Studies in Elementary Education: Second Languages (3)
 - Ed Elem 542 Current Issues and Problems in Bilingual-Bicultural Education (3)
 - FL Ed 545 Teaching Culture in the Language Classroom (3)
 - FL Ed 560 Second Language Acquisition (3)
 - Psychology 311 Educational Psychology (3)
 - Reading 480 The Teaching of Reading (4)
 - Reading 581 Analysis of Reading Difficulties (4)
 - Reading 584 Linguistics and Reading (4)
- C. Culminating Experience
 - FL Ed 596 Practicum (part entails a written and oral comprehensive examination) (3)

For further information, contact the TESOL graduate program adviser in the Department of Foreign Languages and Literatures.

Foreign Language Courses

196 Student-to-Student Tutorials (1-3)

See index.

198 Programmed Courses in Uncommonly Taught Languages (1-3).

Intensive individualized programmed instruction in specific languages other than those regularly offered, such as Turkish. To develop the skills of auditory comprehension and speaking in the language to form a basis for later development of the reading and writing skills. A minimum of 3 hours per week in the learning laboratory and regular sessions with native informants are required for each unit of credit. May be repeated for credit.

495 Internship in Foreign Languages (3)

Prerequisites: French, German or Spanish 310, 311 and consent of instructor. Supervised field experience in multinational businesses locally or abroad. Daily use of a foreign language on the job and concurrent enrollment in a School of Business internship are required.

496 Student-to-Student Tutorials (1-3)

See index.

Foreign Language Education Courses

099 Developmental Writing

(Same as English 099)

105A,B English as a Second Language (4)

English for non-native speakers. Practice in listening comprehension, speaking, reading and writing to improve control of the basic sounds and structures of English. Language laboratory assignments are included. (Same as Linguistics 105A,B)

300 Advanced Conversation for Non-Native Speakers of English (3)

Detailed analysis of pronunciation, phonological patterns and sentence structures in English for speakers of other languages. Systematic, intensive expansion of conventional skills in American everyday and university cultural settings with comparison of values in native speech community.

442 Teaching Foreign Languages in the Secondary School (3)

Prerequisites: French, German or Spanish 466; and admission to teacher education or consent of instructor. Principles, methods and materials of language learning and teaching. Includes lectures, activities and fieldwork. Required before admission to student teaching.

443A Principles of Teaching English to Speakers of Other Languages (3)

Prerequisite: French, German or Spanish 466 or Linguistics 406. Recent trends, including the expanded use of electromechanical aids, programmed instruction and applied linguistics in the teaching of English to speakers of other languages. Techniques related to auditory comprehension and oral production of English. (Same as Linguistics 443A)

443B Principles of Teaching English to Speakers of Other Languages (3)

Prerequisite: French, German or Spanish 466 or Linguistics 406. Recent trends, including the use of electromechanical

aids, programmed instruction, and applied linguistics in the teaching of English to speakers of other languages. Techniques related to the reading and writing of English. (Same as Linguistics 443B)

449E Externship in Secondary Teaching (3) (Formerly 449A)

See description under Department of Elementary and Bilingual Education.

449I Internship in Secondary Teaching (10) (Formerly 449A)

See description under Department of Elementary and Bilingual Education.

449S Seminar in Secondary Teaching (2) (Formerly 449B)

See description under Department of Elementary and Bilingual Education.

468 TESOL Contrastive Analysis (3)

Prerequisites: junior standing or above, successful completion of Spanish, French or German 466 and at least one 400-level Linguistics class. Theory and performance techniques for contrasting phonological, grammatical and lexical structures of English and three selected world languages.

527 Theory of Bilingual Language Acquisition (3)

Prerequisites: Spanish, French or German 466 and Spanish 468 or FL-Ed 468 or Linguistics 406 and consent of instructor. Methodology for research in bilingual language acquisition and development; socio-linguistic and psycholinguistic patterns in bilingualism; interactions of language and culture in the language acquisition process.

545 Teaching Culture in the Language Classroom (3)

Prerequisite: FL-Ed 443A,B or consent of instructor. Provides a framework for teaching culture and value systems in the second language classroom. Emphasis on teaching patterns of culture, methods of cultural comparison, audiovisual materials and textbook evaluation.

560 Second Language Assessment (3)

Prerequisites: FL-Ed 442 or 443A, B or equivalent. Theories, issues, basic statistical concepts in second language testing and techniques for second language assessment. Practice in analyzing commercial language tests and in constructing tests for classroom use.

595 Curriculum and Program Design for TESOL (3)

Prerequisite: FL-Ed 443A,B. Curriculum and program design for TESOL, including such factors as classroom management systems, appropriate selection and/or design of program materials.

596 TESOL Practicum (3)

Prerequisites: FL-Ed 443A,B, Spanish 468 or FL-Ed 468 and one elective. Teaching English to speakers of other languages on campus or in local schools. Supervised by faculty and cooperating individuals. Seminar meetings by arrangement. May be repeated for credit upon consent of adviser.

599 Independent Graduate Research (1-3)

Prerequisites: graduate standing and consent of instructor. Supervised research projects in teaching English to speakers of other languages (TESOL). May be repeated for credit.

Arabic Courses

101 Fundamental Arabic—A (4)

Practice in listening comprehension, speaking, reading and writing to develop control of the sounds and the basic forms and structures of modern standard Arabic.

102 Fundamental Arabic—B (4)

Prerequisite: Arabic 101 or equivalent. Practice in listening comprehension, speaking, reading and writing to develop control of the sounds and the basic forms and structures of modern standard Arabic.

299 Directed Study (1-3)

Prerequisite: Arabic 102 or equivalent. Supervised study projects in Arabic language or literature to be taken with consent of instructor and department chair. May be repeated for credit.

Chinese Courses

101 Fundamental Chinese—A (5)

Practice in listening comprehension, speaking, reading and writing to develop control of the sounds and the basic structure of Chinese. Audiolingual assignments in the language laboratory. Conducted in Chinese.

102 Fundamental Chinese—B (5)

Prerequisite: Chinese 101 or equivalent. Practice in listening comprehension, speaking, reading and writing to develop control of the sounds and the basic forms and structure of Chinese. Audiolingual assignments in the language laboratory. Conducted in Chinese.

299 Directed Study (1-3)

Prerequisite: Chinese 102 or equivalent. Supervised study projects in Chinese language or literature to be taken with consent of instructor and department chair. May be repeated for credit.

French Courses

101 Fundamental French—A (5)

Practice in listening comprehension, speaking, reading and writing to develop control of the sounds and the basic forms and structure of French. Audiolingual assignments in the language laboratory. Conducted in French.

102 Fundamental French—B (5)

Prerequisite: French 101 or equivalent. Practice in listening comprehension, speaking, reading and writing to develop control of the sounds and basic structure of French. Assignments in the language laboratory. Conducted in French.

203 Intermediate French—A (3)

Prerequisite: French 102 or equivalent. Practice in speaking, understanding, reading, and writing based on cultural and literary materials. Linguistic analysis from sound to sentence. Conducted in French.

204 Intermediate French—B (3)

Prerequisite: French 203 or equivalent. Practice in speaking, understanding, reading and writing based on cultural and literary materials. Linguistic analysis from sound to sentence. Conducted in French.

230 Intermediate Diction and Phonetics (2)

Practice in oral delivery of cultural and literary materials. Analysis of individual problems in pronunciation. May be taken concurrently with French 203. Conducted in French.

240 Intermediate Conversation and Composition (2)

Prerequisite: French 203 or equivalent. Discussion and practice in written expression based on cultural and literary materials. May be taken concurrently with French 204. Conducted in French.

300 French Conversation (3)

Prerequisite: French 204 or equivalent. Development of oral control of the language through discussions, oral presentations and dialogues. Vocabulary development in areas of student concerns. Conducted in French.

310 French in the Business World (3)

Prerequisite: French 204 or consent of instructor. Designed to give students a working knowledge of business language (oral and written) in the French-speaking world. Emphasis on cultural and sociological contexts of business procedures. Analysis of appropriate current periodicals. Conducted in French.

311 French for International Business (3)

Prerequisite: French 204 or consent of instructor. Designed to give students experience in reading comprehension and analysis of materials dealing with economic and political realities in the French-speaking world. Analysis of appropriate current periodicals. Conducted in French.

315 Origins of Modern France (3)

Prerequisite: French 204 or equivalent. The social, intellectual and artistic origins of French civilization: feudal society becoming the *ancien regime*; the medieval world-view transformed by the Renaissance. Literary selections in modern French translation. Conducted in French.

317 Advanced Composition and Grammar (3)

Prerequisite: French 204 or equivalent. Free oral and written expression. Conducted in French.

318 Advanced Composition and Grammar (3)

Prerequisite: French 204 or equivalent. The control of French as an instrument for free oral and written expression. Conducted in French.

325 Contemporary French Civilization (3)

Prerequisite: French 204 or equivalent. Reading and discussion to develop understanding of the social and intellectual problems, trends, and contributions of present-day France. Strengthening facility in the language. Conducted in French.

375 Introduction to Literature (3)

Prerequisite: French 204 or equivalent. The nature of human language, the literary use of language, literary creation, reading, and what critics are able to say about literary works. Reading and discussion of some typical, mainly contemporary, texts. Conducted in French.

385 Techniques of French-English Translation (3)

Prerequisites: French 317 or consent of instructor. An overview of theories of translation; examination of several types and examples of translation (technical to literary). Major emphasis on actual translation from English to French and French to English.

407 French Film (3)

Prerequisite: French 317 or 318 or consent of instructor. The developing art of the French film, with special emphasis on the many roles of language. Subjects treated include: montage, visual/verbal meaning, literary/cinematic narrative,

non-realistic language, read language, non-narrative continuity. Conducted in French.

415 French Classicism (3)

Prerequisites: French 317 and 375. The decisive moment in French experience. Focus on literature of the Classic period (1660-1685) but open at both ends to include the formation and perennality of French Classicism. Conducted in French.

425 French Romanticism (3)

Prerequisites: French 317 and 375. The revolution in feeling and intellect in 19th-century France. The Romantic period (1820-1850). May include material preceding or following those dates. Conducted in French.

466 Introduction to French Linguistics (3)

Prerequisite: French 317 or 318. Analytical procedures of general linguistics applied to French. Structural contrasts between French and English. The application of linguistic analysis to the teaching of modern foreign languages.

475A,B,C,D Seminar in 20th-Century French Literature (3,3,3,3)

Prerequisites: French 315, 317, 375, and 415 or 425. If 415 or 425 has not been completed, one must be taken concurrently. The study of 20th-century French literature organized around four major themes. Conducted in French.

475A Exploration of the Self (3)

See prerequisites above. Search for identity and the quest for personal authenticity. The role of the conscious and unconscious mind and of artistic creativity. Proust, Gide, Mauriac, Valéry, etc.

475B In Search of the Real (3)

See prerequisites above. The surrealist revolt against bourgeois logic, mores and literature. From Dada to automatic writing to Revolution to *l'amour fou*. Includes precursors and kindred spirits (e.g. Lautréamont, Jarry).

475C The Individual and Society (3)

See prerequisites above. Attitudes toward personal freedom; the existential sense of responsibility toward one's fellows. Sanit-Exupéry, Malraux, Sartre, Camus, etc.

475D Beyond Despair (3)

See prerequisites above. Writers after World War II seeking tough-minded visions to replace the humanism of the '30's, new kinds of hope "beyond despair", (Sartre's "la vraie vie commence au-delà du désespoir").

485 Senior Seminar in French Literature (3)

Prerequisites: French 315, 317, 375, and senior standing. A literary current, period, author, genre or problem. Subject will change each time course is given. May be repeated for credit. Conducted in French.

499 Independent Study (1-3)

Supervised projects in French language or literature. Consent of the instructor and department chair required. May be repeated for credit.

500 Graduate Seminar: Advanced Structure and Style (3)

Prerequisite: consent of instructor. Conducted in French.

520 Graduate Seminar: Old French (3)

Prerequisite: consent of instructor. Readings in the medieval literature of northern France. A variety of dialects and centuries. Conducted in French.

530 Graduate Seminar: Historical Linguistics (3)

Prerequisites: French 466 or consent of instructor. Some previous study of Latin recommended. Introduction to the principles of historical linguistics. Primary emphasis on the transformation of classical Latin (phonology, morphology, syntax and lexicon) into contemporary French. Conducted in French.

557 Graduate Seminar: French Poetry (3)

Prerequisite: consent of instructor. Conducted in French.

571 Graduate Seminar: French Prose (3)

Prerequisite: consent of instructor. Conducted in French.

575 Graduate Seminar: French Drama (3)

Prerequisite: consent of instructor. Conducted in French.

576 Graduate Seminar: Major Writers (3)

Prerequisite: consent of instructor. May be repeated for credit. Conducted in French.

598 Thesis (3-6)

Prerequisite: recommendation of student's graduate committee.

599 Independent Graduate Research (1-3)

Prerequisites: fluency in French and consent of instructor. Supervised research projects in French language or literature. May be repeated for credit.

German Courses

100A-G, I-K Personalized Instruction in Fundamental German (3-10)

Equivalent to German 101 or 102. Students may enter at any level but must initially register for a minimum of three units. Course is divided into 10 one-unit modules. Students work independently and meet individually with instructors for consultation and tests.

101 Fundamental German—A (5)

Practice in listening comprehension, speaking, reading and writing to develop control of the sounds and the basic forms and structures of German. Audiolingual assignments in the language laboratory.

102 Fundamental German—B (5)

Prerequisite: German 101 or equivalent. Practice in listening comprehension, speaking, reading, and writing on a basic level. Audiolingual assignments in the language laboratory.

203 Intermediate German—A (3)

Prerequisite: German 102 or equivalent. Practice in speaking, understanding, reading, and writing based on cultural and literary materials. Linguistic analysis from sound to sentence. Conducted in German.

204 Intermediate German—B (3)

Prerequisite: German 203 or equivalent. Practice in speaking, understanding, reading and writing based on cultural and literary materials. Linguistic analysis from sound to sentence. Conducted in German.

213 Intermediate Reading (2)

Prerequisite: German 102 or equivalent. Reading comprehension development. Required for major and minor. May be taken concurrently with German 203. Conducted in German.

214 Intermediate Reading (2)

Prerequisite: German 203 or equivalent. Continuation of German 213. Reading comprehension development. Required

for major and minor. May be taken concurrently with German 204. Conducted in German.

300 German Conversation (3)

Prerequisite: German 204 or equivalent. Development of oral control of the language in the context of students' own or contemporary concerns. Conducted in German.

310 German in the Business World (3)

Prerequisite: German 204 or consent of instructor. Designed to give students a working knowledge of business language in the German-speaking world. Emphasis on business correspondence, conversation between business partners and the language of advertising. Conducted in German.

311 German for International Business (3)

Prerequisites: German 204; 310 recommended. Designed to give students experience in reading comprehension and oral analysis of materials dealing with economic and political realities in the German-speaking world, seen in their cultural and sociological context. Conducted in German.

315 Introduction to German Civilization (3)

Prerequisite: German 204 or equivalent. Open to lower-division students with consent of instructor. Readings and discussions in German literature, arts and institutions to develop insights into German culture, while strengthening facility with the language. Conducted in German.

317 Advanced Conversation and Composition (3)

Prerequisite: German 204 or equivalent. Open to lower-division students with consent of instructor. Free oral and written expression. Conducted in German.

325 Current Trends in Culture of German-Speaking Peoples (3)

Prerequisite: German 204 or equivalent. Open to lower-division students with consent of instructor. Readings and discussion of German contributions to present-day civilization while strengthening facility with German language. Conducted in German.

375 Introduction to Literary Forms (3)

Prerequisite: German 317 or consent of instructor. The principal literary forms, prose fiction, poetry, drama and the essay and the major concepts of literary techniques and criticism. Analysis and interpretation of various texts. Conducted in German.

399 German Phonetics (3)

Prerequisite: intermediate competency. Analysis of students' pronunciation and intensive practice of phonetic patterns including intonation. Development of conversational competency. May be repeated for credit; but may count only once toward German major.

401 Advanced Conversation Practice and Vocabulary Expansion (3)

Prerequisite: German 317 or consent of instructor. Intensive oral practice with emphasis on vocabulary expansion. Conducted in German.

430 German Literature and Culture to the Baroque (3)

Prerequisites: German 315, 317 and 375, or consent of instructor. Masterpieces of German literature from the *Hildebrandslied* to *Der Abenteuerrliche Simplicissimus* and their relationship to cultural, historical and intellectual developments between ca. 800-1670 A.D. Conducted in German.

440 18th-Century German Literature and Culture (3)

Prerequisites: German 315, 317 and 375, or consent of instructor. The principal authors and movements (Enlightenment, Storm and Stress, Classicism, early Romanticism) of the 18th century. Conducted in German.

450 19th-Century German Literature and Culture (3)

Prerequisites: German 315, 317 and 375, or consent of instructor. 19th-century German literature from Romanticism to Naturalism. Decisive philosophic, political and economic influences. Conducted in German.

460 20th-Century German Literature and Culture (3)

Prerequisites: German 315, 317, 375, or consent of instructor. Major German prose, drama and poetry of the 20th century. Conducted in German.

462 Cultural and Educational Policies in Germany (3)

Prerequisite: two years of teaching experience. An exploration in the cultural and educational policies in Germany. Format: a minimum of 15 hours a week will be spent in lecture-discussion, 5 hours in demonstrations, and 10 hours in field-work.

466 Introduction to German Linguistics (3)

Prerequisite: German 317 or consent of instructor. Analytical procedures of general linguistics as applied to German. Structural contrasts between German and English. The application of linguistic analysis to the teaching of modern foreign languages.

482 German Literature and Culture in Film (3)

Prerequisite: advanced standing in literature or consent of instructor. A critical study of literary works and their film adaptations. Significant works of German literature will be analyzed and compared in both art forms. May be repeated for credit with different film syllabus.

485 Senior Seminar in German Literature (3)

Prerequisite: senior standing in German. Research and discussion of a literary movement, a genre or an author. Subject varies and is announced in the class schedule. May be repeated for credit with a different topic. Conducted in German.

499 Independent Study (1-3)

Supervised research projects in German language or literature to be taken with consent of instructor and department chair. May be repeated for credit.

500 Graduate Seminar: Advanced Structure and Style (3)

Prerequisite: consent of instructor. Conducted in German.

530 Graduate Seminar: Historical Linguistics (3)

Prerequisite: German 466 or consent of instructor. Conducted in German.

571 Graduate Seminar: German Literature (3)

Prerequisite: consent of instructor. Subject will vary and will be announced in the class schedule. May be repeated for credit with a different topic. Conducted in German.

576 Graduate Seminar: Major Writers (3)

Prerequisite: consent of instructor. Subject will vary and will be announced in the class schedule. May be repeated for credit with a different topic. Conducted in German.

598 Thesis (3-6)

Prerequisite: recommendation of student's graduate committee.

- 599 Independent Graduate Research (1-3)**
Prerequisites: fluency in German and consent of instructor. Supervised research projects in German language or literature. May be repeated for credit.
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Greek Courses

- 101 Fundamental Greek—A (3)**
Practice to develop a reading knowledge and a writing ability in ancient Greek. Biblical texts.
- 102 Fundamental Greek—B (3)**
Prerequisite: Greek 101 or equivalent. Practice to develop a reading knowledge and a writing ability in ancient Greek. Biblical texts.
- 299 Directed Study (1-3)**
Prerequisite: Greek 102 or equivalent. Supervised study projects in Greek language or literature to be taken with consent of instructor and department chair. May be repeated for credit.
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Hebrew Courses

- 101 Fundamental Hebrew—A (4)**
Practice in listening comprehension, speaking, reading and writing Hebrew (same as Religious Studies 101).
- 102 Fundamental Hebrew—B (4)**
Prerequisite: Hebrew 101. Practice in listening comprehension, speaking, reading and writing Hebrew (Same as Religious Studies 102).
- 299 Directed Study (1-3)**
Prerequisite: Hebrew 102 or equivalent. Supervised study projects in Hebrew language or literature to be taken with consent of instructor and department chair. May be repeated for credit.
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Italian Courses

- 101 Fundamental Italian—A (4)**
Practice in listening comprehension, speaking and writing of Italian. Audiolingual assignments in the language laboratory. Conducted in Italian.
- 102 Fundamental Italian—B (4)**
Prerequisite: Italian 101 or equivalent. Practice in listening comprehension, speaking, reading and writing of Italian. Audiolingual assignments. Conducted in Italian.
- 299 Directed Study (1-3)**
Prerequisite: Italian 102 or equivalent. Supervised study projects in Italian language or literature to be taken with consent of instructor and department chair. May be repeated for credit.
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Japanese Courses

- 101 Fundamental Japanese—A (5)**
Practice in listening comprehension, speaking and writing of Japanese. Audiolingual assignments in the language laboratory. Conducted in Japanese.
- 102 Fundamental Japanese—B (5)**
Prerequisite: Japanese 101 or equivalent. Practice in listening comprehension, speaking and writing of Japanese. Audiolingual assignments in the language laboratory. Conducted in Japanese.

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- 203 Intermediate Japanese—A (5)**
Prerequisite: Japanese 102 or equivalent. Instruction in reading, writing, speaking, and comprehending of modern Japanese. Conducted in Japanese.
- 204 Intermediate Japanese—B (5)**
Prerequisite: Japanese 203 or equivalent. Instruction in reading, writing, speaking and comprehending of modern Japanese. Conducted in Japanese.
- 213 Intermediate Conversational Japanese (2)**
Prerequisites: FL-J 102 or equivalent. Practice in conversation with emphasis on vocabulary expansion, expression and fluency in modern Japanese. Conducted mainly in Japanese. May be taken concurrently with 203.
- 214 Japanese Writing and Calligraphy (2)**
Prerequisite: Japanese 102 or equivalent. Study of the nature and composition of two Japanese writing systems, Hiragana and Kanji.
- 299 Directed Study (1-3)**
Prerequisite: Japanese 102 or equivalent. Supervised study projects in Japanese language or literature to be taken with consent of instructor and department chair. May be repeated for credit.
- 310 Japanese for Business (3)**
Prerequisites: FL-J 204 and 214 or consent of instructor. Designed to acquaint the student with the practical vocabulary and structure of business language, as well as the cultural background of business procedures in the Japanese business world. Conducted mainly in Japanese.
- 311 Japanese for International Business (3)**
Prerequisites: FL-J 204 and 214 or consent of instructor. Acquisition of vocabulary and language structures for Japanese in the international business world and related economic situations. Emphasis on comprehension of business terminology through conversation, reading, and writing. Conducted mainly in Japanese.
- 315 Introduction to Japanese Civilization (3)**
Prerequisite: FL-J 204 or equivalent or consent of instructor. Readings and lectures in Japanese literature, arts, and institutions from earliest history to 1868, to develop insights into Japanese culture while strengthening facility in the language. Conducted in Japanese.
- 316 Modern Japan (3)**
Prerequisites: Japanese 204 and 315 or consent of instructor. Readings and lectures in Japanese literature, arts, and institutions from 1868 to the present, to develop insights into Japanese culture while strengthening facility in the language. Conducted in Japanese.
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Latin Courses

- 101 Fundamental Latin—A (4)**
Practice to develop a reading knowledge and a writing ability in Latin. Modern techniques of language instruction will be applied.
- 102 Fundamental Latin—B (4)**
Prerequisite: Latin 101 or equivalent. Practice to develop a

reading knowledge and a writing ability in Latin. Modern techniques of language instruction will be applied.

299 Directed Study (1-3)

Prerequisite: Latin 102 or equivalent. Supervised study projects in Latin language or literature to be taken with consent of instructor and department chair. May be repeated for credit.

Portuguese Courses

101 Fundamental Portuguese—A (4)

Prerequisite: previous study of a Romance language. Listening comprehension, speaking, reading comprehension, and writing of Portuguese. Conducted in Portuguese.

102 Fundamental Portuguese B (4)

Prerequisite: Portuguese 101 or equivalent. Listening comprehension, speaking, reading comprehension of Portuguese. Conducted in Portuguese.

310 Portuguese in the Business World (3)

Prerequisites: FL-P 102 or consent of the instructor. Emphasis on practical business-related terminology and on the cultural and socio-political contexts of doing business in Portuguese-speaking countries. Conducted in Portuguese.

317 Advanced Conversation and Composition (3)

Prerequisite: Portuguese 102 or equivalent or consent of instructor. Emphasis on free oral and written expression. Conducted in Portuguese.

320 Introduction to Luso-Brazilian Culture and Civilization (3) (formerly Portuguese 315)

Prerequisite: Portuguese 317 or 318 or equivalent, reading knowledge of Portuguese or consent of instructor. The main currents of Portuguese culture and civilization and Brazil's intellectual and artistic development from discovery to independence. Conducted in Portuguese.

325 Contemporary Brazilian Civilization (3)

Prerequisite: Portuguese 317 or equivalent. Readings and discussion to develop understanding of the social and intellectual problems, trends, and contributions to Brazil since independence. Present day Brazil. Conducted in Portuguese.

431 Portuguese Literature (3)

Prerequisite: Portuguese 317 or 318 or consent of instructor. Portuguese literature from the Middle Ages to the present. The major works of Gil Vicente, Luis de Camoens, Eca de Queiroz and others examined from an aesthetic and cultural standpoint. Conducted in Portuguese.

441 Brazilian Literature (3)

Prerequisite: 317 or consent of instructor. The literature of Brazil from the colonial period to the present. Conducted in Portuguese.

499 Independent Study (1-3)

Supervised projects in Portuguese language or literature to be taken with consent of instructor and department chair. May be repeated for credit.

Russian Courses

101 Fundamental Russian—A (5)

Intensive practice in listening comprehension, speaking, reading and writing to develop control of the sounds and ba-

sic forms and structures of Russian. Audiolingual assignments are an integral part of the course and are to be prepared in the language laboratory. Conducted mainly in Russian.

102 Fundamental Russian—B (5)

Prerequisite: Russian 101 or consent of instructor. Intensive practice in listening comprehension, speaking, reading and writing to develop control of the sounds and structures of Russian. Audiolingual assignments are an integral part of the course and are to be prepared in the language laboratory. Conducted mainly in Russian.

203 Intermediate Russian—A (5)

Prerequisite: Russian 102 or consent of instructor. Intensive practice in understanding, speaking, reading and writing based on cultural and literary materials. Audiolingual assignments are an integral part of the course and are to be prepared in the language laboratory. Conducted in Russian.

204 Intermediate Russian—B (5)

Prerequisite: Russian 203 or consent of instructor. The student will continue practice in understanding, speaking, reading and writing conversational forms and structures of Russian. Audiolingual assignments are an integral part of the course and are to be prepared in the language laboratory. Conducted in Russian.

Spanish Courses

101 Fundamental Spanish—A (5)

Intensive practice in listening comprehension, speaking, reading and writing of Spanish. Assignments in the language laboratory. Conducted in Spanish.

102 Fundamental Spanish—B (5)

Prerequisite: Spanish 101 or equivalent. Practice in listening comprehension, speaking, reading and writing of Spanish. Assignments in the language laboratory. Conducted in Spanish.

103 Intensive Review of Fundamental Spanish (5)

For students who have completed 3 years of high school Spanish or equivalent and need an intensive review of first-year Spanish, equivalent to Spanish 101 and 102. Assignments in the language laboratory. Conducted in Spanish.

201 Spanish for Hispanics (3)

Prerequisite: consent of instructor. An intermediate course designed to improve the communication skills in Spanish for bilingual students. Emphasis on spelling, grammar and composition. Conducted in Spanish. Students may not receive credit for both Spanish 201 and 203.

203 Intermediate Spanish—A (3)

Prerequisite: Spanish 102 or equivalent. Practice in speaking, understanding, reading and writing based on cultural and literary materials. Linguistic analysis from sound to sentence. Conducted in Spanish.

204 Intermediate Spanish—B (3)

Prerequisite: Spanish 203 or equivalent. Practice in speaking, understanding, reading and writing based on cultural and literary materials. Linguistic analysis from sound to sentence. Conducted in Spanish.

213 Intermediate Conversation (2)

Practice in oral expression. May be taken concurrently with Spanish 203. Conducted in Spanish.

- 214 Intermediate Composition (2)**
Practice in written expression based on cultural and literary materials. May be taken concurrently with Spanish 204. Conducted in Spanish.
- 300 Spanish Conversation (3)**
Prerequisite: Spanish 204 or equivalent. To develop oral control of the language in the context of students' own or contemporary concerns. Conducted in Spanish.
- 310 Spanish in the Business World (3)**
Prerequisite: Spanish 204 or consent of instructor. Practical vocabulary and structure of business language, as well as the cultural background of business procedures in the Hispanic world. No credit toward Spanish major. Conducted in Spanish.
- 311 Spanish for International Business (3)**
Prerequisite: Spanish 204 or consent of instructor. Acquisition of vocabulary appropriate to the Hispanic business world and study of its economic institutions. Emphasis on reading comprehension, conversation and composition. Conducted in Spanish.
- 315 Introduction to Spanish Civilization (3)**
Prerequisite: Spanish 204 or equivalent or consent of instructor. Readings and discussions in Spanish literature, arts and institutions. Strengthening of facility in the language. Conducted in Spanish.
- 316 Introduction to Spanish-American Civilization (3)**
Prerequisite: Spanish 204 or equivalent or consent of instructor. Readings and discussion in Spanish-American literature, arts and institutions. Strengthening of facility in the language. Conducted in Spanish.
- 317 Advanced Conversation and Composition (3)**
Prerequisite: Spanish 204 or equivalent. Open to lower-division students with consent of instructor. Emphasis on free oral and written expression. Conducted in Spanish.
- 375 Introduction to Literary Forms (3)**
Prerequisite: Spanish 317 or consent of instructor. Introduction to literary forms and concepts of literary techniques and criticism. Analysis and interpretation of various texts. Strengthening of students' abilities in reading, language and literary criticism. Conducted in Spanish.
- 400 Spanish for Advanced Students and Teachers (3)**
Prerequisite: Spanish 317. Emphasis on free oral and written expression. Conducted in Spanish. Development of students' powers of self-expression and ability to analyze the structure of the written language. Conducted in Spanish.
- 415 Contemporary Spanish Culture (3)**
Prerequisite: Spanish 315 or consent of instructor. The cultural—social, economical, political—characteristics of contemporary Spanish life. Conducted in Spanish.
- 416 Contemporary Spanish-American Culture (3)**
Prerequisite: Spanish 316 or consent of instructor. The social, economic, artistic, and political aspects of contemporary life in Spanish America. Conducted in Spanish.
- 430 Spanish Literature to Neoclassicism (3)**
Prerequisite: Spanish 315 and 375. Spanish literature from its beginnings to 1700. Representative works of each genre. Conducted in Spanish.
- 441 Spanish-American Literature (3)**
Prerequisites: Spanish 316 and 375 or consent of instructor. Spanish-American Literature from *modernismo* to the present. Conducted in Spanish.
- 461 Spanish Literature Since Neoclassicism (3)**
Prerequisites: Spanish 315 and 375 or consent of instructor. Representative works of 19th- and 20th-century Spain. Conducted in Spanish.
- 466 Introduction to Spanish Linguistics (3)**
Prerequisite: Spanish 317 or equivalent with consent of instructor. The analytical procedures of general linguistics as applied to Spanish. Structural contrasts between Spanish and English. The application of linguistic analysis to the teaching of modern foreign languages. Conducted in Spanish.
- 467 Dialectology: Current Trends in Modern Spanish (3)**
Prerequisites: Spanish 317, 400 or equivalent and 466, which may be taken concurrently. The differences in phonology, morphology, syntax and lexicon in linguistic patterns in all Spanish-speaking regions. Conducted in Spanish.
- 468 Spanish-English Contrastive Analysis (3)**
Prerequisites: Spanish 317, 400 or equivalent, and 466 which may be taken concurrently. Theory and performance techniques for contrasting phonological, grammatical and lexical structures of Spanish and English. Conducted in Spanish.
- 475 Senior Seminar: Topics in Spanish Peninsular Literature (3)**
Prerequisite: senior standing in Spanish. Selected topics of the literature of Spain. Subject matter will change. May be repeated for credit. Conducted in Spanish.
- 485 Senior Seminar: Topics in Spanish American Literature (3)**
Prerequisite: senior standing in Spanish. Selected topics of the literature of Spanish America. Subject matter will change. May be repeated for credit. Conducted in Spanish.
- 499 Independent Study (1-3)**
Supervised research projects in Spanish language or literature to be taken with consent of instructor and department chair. May be repeated for credit.
- 500 Graduate Seminar: Advanced Structure and Style (3)**
Prerequisite: Spanish 466 or equivalent. Conducted in Spanish.
- 530 Graduate Seminar: Historical Linguistics (3)**
Prerequisite: Spanish 466 or equivalent. Conducted in Spanish.
- 556 Graduate Seminar: Spanish Poetry (3)**
Prerequisite: Spanish 430 or 461 or equivalent. Conducted in Spanish.
- 557 Graduate Seminar: Spanish-American Poetry (3)**
Prerequisite: Spanish 441 or equivalent. Conducted in Spanish.
- 567 Graduate Seminar: Spanish-American Novel (3)**
Prerequisite: Spanish 441 or equivalent. Conducted in Spanish.
- 571 Graduate Seminar: Spanish Prose (3)**
Prerequisite: Spanish 430 or 461 or equivalent. Conducted in Spanish.

575 Graduate Seminar: Spanish Drama (3)

Prerequisite: Spanish 430 or 461 or equivalent. Conducted in Spanish.

576 Graduate Seminar: Hispanic Topics (3)

Prerequisite: Spanish 430 or 441 or 461 or equivalent. May be repeated for credit with different subject matter. Conducted in Spanish.

598 Thesis (3-6)

Prerequisite: recommendation of student's graduate committee.

599 Independent Graduate Research (1-3)

Prerequisites: fluency in Spanish and consent of instructor. Supervised research projects in Spanish language or literature. May be repeated for credit.

Vietnamese Course

316 Vietnamese Culture (3)

Prerequisites: upper-division standing and consent of instructor. An analysis of major factors and elements of Vietnamese culture, past and present. The impact of American culture on Vietnamese traditions. Conducted in Vietnamese and English.

Department of Geography

Department Chair: Robert Young
Department Office: Humanities 420A

Programs Offered

Bachelor of Arts in Geography

Minor in Geography

Master of Arts in Geography

Faculty

Wayne Engstrom, Gary Hannes, Ronald Helin,
 Tso Hwa Lee, Bill Lloyd, Bill Puzo, Imre Sutton,
 Barbara Weightman, Robert Young

Advisers

Undergraduate: Wayne Engstrom

Graduate: Barbara Weightman

INTRODUCTION

Geography is unified by a common concern: the meaning of place and the organization of territory over the earth's surface. The region is a fundamental concept in geography. Geographers are concerned not only with regional definition and diversity but also with the impacts of societies on such regions as Latin America and the Middle East or deserts and tropical rain forests.

Territorial, or spatial, organization is another interest of geographers and may be analyzed in terms of natural features and processes as in the study of landforms, climate, and plant communities. Similarly, geographers seek to understand and explain the physical, social, and economic organization of landscapes through studies of land use patterns, cities, cultural frameworks, and linkages between perception and behavior. These patterns and processes which define the character of places and regions are analyzed through mapping, aerial photographs, and computer-assisted methods. These techniques demonstrate the special capacity of geographers to understand territorial relationships and to illustrate the holistic nature of place.

The specialty of cartographer, or map-maker, is the most familiar occupation of geographers, but an even larger number are employed as planners, environmental analysts, teachers, and technical specialists in a wide range of business and governmental areas.

441 Spanish-American Literature (3)

Prerequisites: Spanish 316 and 317 or consent of instructor

Spanish-American Literature (3)
 Prerequisite: Spanish 430 or 481 or equivalent. Conducted in Spanish.

451 Spanish Literature Since 1800 (3)
 Prerequisite: Spanish 430 or 481 or equivalent. Conducted in Spanish.

455 Introduction to Spanish Linguistics (3)
 Prerequisite: Spanish 317, 400 or equivalent. Conducted in Spanish.

467 Dialectology: Current Trends in Modern Spanish (3)
 Prerequisites: Spanish 317, 400 or equivalent and 465, which may be taken concurrently. The differences in phonology, morphology, syntax and lexicon in linguistic patterns in all Spanish-speaking regions. Conducted in Spanish.

468 Spanish-English Contrastive Analysis (3)
 Prerequisite: Spanish 317, 400 or equivalent and 466 which may be taken concurrently. Theory and performance techniques for contrasting phonological, grammatical and lexical structures of Spanish and English. Conducted in Spanish.

475 Senior Seminar: Topics in Spanish Peninsular Literature (3)
 Prerequisite: senior standing in Spanish. Selected topics of the literature of Spain. Subject matter will change. May be repeated for credit. Conducted in Spanish.

485 Senior Seminar: Topics in Spanish American Literature (3)
 Prerequisite: senior standing in Spanish. Selected topics of the literature of Spanish America. Subject matter will change. May be repeated for credit. Conducted in Spanish.

486 Independent Study (1-3)
 Supervised research projects in Spanish language or literature to be taken with consent of instructor and department chair. May be repeated for credit.

500 Graduate Seminar: Advanced Structure and Style (3)
 Prerequisite: Spanish 466 or equivalent. Conducted in Spanish.

530 Graduate Seminar: Historical Linguistics (3)
 Prerequisite: Spanish 466 or equivalent. Conducted in Spanish.

535 Graduate Seminar: Spanish Poetry (3)
 Prerequisite: Spanish 400 or 481 or equivalent. Conducted in Spanish.

557 Graduate Seminar: Spanish-American Poetry (3)
 Prerequisite: Spanish 441 or equivalent. Conducted in Spanish.

567 Graduate Seminar: Spanish-American Novel (3)
 Prerequisite: Spanish 441 or equivalent. Conducted in Spanish.

571 Graduate Seminar: Spanish Press (3)
 Prerequisite: Spanish 430 or 481 or equivalent. Conducted in Spanish.

Students and counselors are advised that departmental offerings are numbered according to *course content* as follows.

- general courses:* 00-09 (e.g., Geo 100)
- physical courses:* 10-29 (e.g., Geo 110 or 323)
- regional courses:* 30-49 (e.g., Geo 344 or 431)
- human courses:* 50-79 (e.g., Geo 160 or 357)
- technical courses:* 80-89 (e.g., Geo 280 or 381)
- special studies:* 90-99 (e.g., Geo 495 or 599)

BACHELOR OF ARTS IN GEOGRAPHY

The major consists of at least 45 units of geography, of which at least 30 units must be in upper-division courses. Students may satisfy some requirements with equivalent course work taken at other institutions; they may also transfer into the major an additional 3 units of lower division geography and an approved amount of upper-division geography. No *unit* credit toward the major will be allowed for geography courses in which a grade of D is received. *Content* credit for such courses may be allowed by the departmental undergraduate adviser.

Basic Requirements (Geography Core) 15 units

- Geography 100 World Geography (3)
- Geography 110 Principles of Physical Geography (3)
- Geography 160 Culture and Environment (3)
- Geography 280-281 Courses in Geographic Techniques (3 units total)
- Geography 300 Geographical Writing (3) or Engl 360 Scientific & Technical Writing (3)

Breadth Requirements:

Complete 12 units in upper-division geography courses, including one course from each of the following groups—*physical, regional, human* and *technical*.

400-Level Courses

6 units in 400-level geography classes beyond work used to satisfy the breadth requirement. This cannot include 490s.

Career Emphases

Geography graduates typically find employment opportunities in such areas as environmental analysis, urban affairs, regional and urban planning, the travel industry and related technical fields. A program of study leading to specialization in these and other career areas may be designed in consultation with the undergraduate adviser. This enables students to focus their selection of courses within the breadth requirement outlined above.

Concentration in Urban Geography:

All undergraduate majors are required to complete the 15 units of core coursework listed in the catalog regardless of concentration or decision to select the generalist major.

	<i>Units</i>
Foundations in Urban Geography	3
Geography 170 The City (3)	
Breadth Requirements	6

Geography 357 Social Geography - Perception and Behavior (3)	
Geography 360 Economic Geography (3)	
Geography 370 Urban Geography (3)	
Required Technical Course	3
Geography 381 Cartography (3)	
Related Electives	6
Either Geography 329 Physical Geog. of the City (3) or	
Geography 377 Neighborhoods (3) and either Geography 385 Quantitative Geography (3)	
Geography 386 Data Processing for Geog. Inf. (3)	
Analytical and Planning Seminars	6
Geography 472 Urban Dynamics and Planning (3)	
Geography 475 Interpretation of Urban Landscapes (3)	
Geography 484 Urban Planning Methods (3)	
Geography 488 Land Use Analysis (3)	
Total	24

Concentration in Environmental Analysis:

All undergraduate majors are required to complete the 15 unit core coursework regardless of concentration.

	<i>Units</i>
Foundations in Environmental Analysis	6
Geography 120 Environment and Change (3)	
Geography 350 Conservation and Ecology in America (3)	
Breadth Requirements	6
Geography 312 Geomorphology (3)	
Geography 323 Weather and Climate (3)	
Geography 325 Plant Geography (3)	
Techniques	6
Geography 384 Airphoto and Image Interpretation (3) and three units from:	
Geography 381 Cartography (3)	
Geography 385 Quantitative Geography (3)	
Geography 386 Data Processing for Geographic Information (3)	
Related Electives	3
Geography 329 Physical Geography of the City (3)	
Geography 352 The National Parks (3)	
Geography 357 Social Geography — Perception and Behavior (3)	
Geography 488 Land Use Analysis (3)	
Environmental Seminars	6
Geography 412 Regional Geomorphology of the United States (3)	
Geography 422 Regional Climatology (3)	
Geography 426 The Coastal Environment (3)	
Geography 431 Calif Environmental Change (3)	
Geography 450 Hazards, Disasters and Planning (3)	
Geography 468 Law and Environment (3)	
Total	27

MINOR IN GEOGRAPHY

The minor in geography serves students who wish to pursue a second field related to interdisciplinary studies or an elective concentration. Interested students should take at least 21 units of geography, including Geography 100 and three units from the following (110, 120, 160, 170 or 280-281) and a minimum of 12 units of upper-division work. Faculty advisers are available to help students structure their minor in geography.

MASTER OF ARTS IN GEOGRAPHY

This program provides advanced study in physical, human and technical geography. Seminars emphasize physical processes and environmental analysis, landscape interpretation and urban planning, and advanced technical skills. Every effort is made to tailor each student's program of study to meet individual interests, needs, and career objectives in business, government or education.

Prerequisites

Students must meet the university requirements for admission to conditionally classified graduate standing with the declared objective of this degree. See the section of this catalog on admission of graduates.

Classified standing requires an approved study plan and an undergraduate major in geography or a related field that demonstrates competency in each of geography's four subfields: physical, human, regional and technical. Competency is normally demonstrated by satisfactory completion (average 3.0 GPA) of 18 units or more at the upper-division or graduate level. Course or grade deficiencies may be made up with consent of the departmental graduate committee. After completion of all prerequisites and removal of deficiencies, if any, the student is reviewed for classification into the program by the departmental graduate committee.

Before completing nine units of graduate work, each student must select a field of specialization and an appropriate adviser as chair of the *student's* graduate committee. In consultation with the student, this adviser will supervise formulation and completion of the student's study plan. Two other faculty members will also serve on the *student's* graduate committee.

Study Plan

Requirements for the completion of the degree program include:

- 30 units of approved upper division and graduate-level work distributed as follows:

	Units
Geography graduate seminars	6-9
Elective upper division or graduate work in geography (for which up to 6 units may be taken in related fields) including techniques	15
Geography 500 Seminar in Geographic Research	3
Geography 598 Thesis or 597 Project (two projects)	3

Geography 599 Independent Graduate Research

0-3

Total 30

- A technique requirement equivalent to nine units must be completed prior to advancement to candidacy. Three units are prerequisite to classified standing. If the remaining six units were not taken as upper division undergraduate work, they may be included in the study plan.

Each candidate will prepare a thesis. Students specializing in geographic techniques may complete two applied projects in lieu of a thesis. Before registering for Geography 598 or 597, a candidate must have had a thesis or project topic approved by the *student's* graduate committee. The candidate must submit a written research proposal which indicates knowledge of the appropriate literature and of techniques of data collection and analysis. The committee will then discuss the proposal with the candidate, to determine competence to pursue the topic as outlined, and assure that both the student and the committee understand what is to be done. Defense of the finished thesis at a formal meeting of the student's graduate committee is required. Students interested in foreign area studies are expected to demonstrate proficiency in a suitable foreign language.

Advancement to candidacy is attained by completing the technique and study plan requirements and requesting a graduation check.

For further details or advisement communicate with the graduate program adviser, Department of Geography.

Geography Courses

100 World Geography (3)

Introduction to world's geographical regions. Cultural patterns and their evolution in diverse physical environments.

110 Principles of Physical Geography (3)

The major components of the physical environment, including landforms, climate, natural vegetation and soils.

120 Environment and Change (3)

A geographic analysis of the use and misuse of environment.

160 Culture and Environment (3)

Patterns of settlement and livelihood, and the varying roles of population, social organization, religious and political ideologies, resources and technology.

170 The City (3)

Geographic variations in the urbanization process, great world and American cities, and spatial patterns within the city. The city as a built environment.

280A-G Introduction to Geographical Analysis (1)

Prerequisite: minimum of one other core course in geography (i.e., 110 or 160) or consent of instructor. The technical interpretation of physical and human features and activities in the landscape. Majors must take a total of three units.

280A Interpretation of Maps & Aerial Photographs (1)

The uses of maps and aerial photographs in geographic research. Types of data which can be obtained from these sources. Rudimentary measurement techniques.

280B Introduction to Field Methods (1)

Geographic phenomena in their actual setting—"the field."

280C Introduction to Quantitative Methods (1)

Descriptive statistics in geography. Graphs, functions and equations, logarithms and exponents, and an overview of the linear regression model.

280E Library Techniques for Geographers (1)

Library research for geographic inquiry. How and where to find the needed information.

280G Analysis of Weather Maps (1)

The use and analysis of weather maps.

281 Map Reading and Orienteering (2)

Introduction and practical application of skills necessary for using military map products and for military navigation on the ground. A full day, eight-hour Saturday field trip is mandatory.

300 Geographical Writing (3)

Prerequisites: junior standing and at least six upper-division units in geography. Experience in and analysis of geography writing: reviews of literature, essays, major research paper, oral presentation. Group and tutorial sessions. Meets the classroom portion of upper-division writing requirement for geography majors.

312 Geomorphology (3)

Prerequisite: Geography 110 or Earth Science 101 or consent of instructor. Landforms and the processes responsible for their evolution.

323 Weather and Climate (3)

Prerequisite: Geography 110 or consent of instructor. Atmospheric elements and controls, fronts, severe weather, and climatic classification systems.

325 Plant Geography (3)

Prerequisite: Geography 110 or consent of instructor. World distribution, ecology, and patterns of vegetation, including human influences.

329 Physical Geography of the City (3)

Prerequisite: Geography 110 or consent of instructor. Overview of the impact of urbanization on land forms, climate, vegetation, and animals. Planning implications and case studies.

330 California Landscapes (3)

Prerequisite: upper-division standing. The landscapes of California—their environmental characteristics, development patterns and current problems.

332 United States and Canada (3)

Prerequisite: upper-division standing. The United States and Canada. The interrelated physical and cultural features that give geographic personality to the regions.

333 Latin America (3)

Prerequisite: upper-division standing. Middle and South America. The interrelationships of the physical and social factors of the area.

336 Europe (3)

Prerequisite: upper-division standing. The basic physical and human lineaments of Europe. The elements that distinguish and give character to its major regional divisions.

338 Soviet Union (3)

Prerequisite: upper-division standing. Physical, historical and political geography of the Soviet Union. Economic and social themes that lend identity to the country's major geographical regions.

340 Asia (3)

Prerequisite: upper-division standing or consent of instructor. The physical, human and regional geography of Asia from Pakistan and India through Southeast Asia and the Malay Archipelago to China, Japan and Korea.

344 Africa (3)

Prerequisite: upper-division standing. The physical, human and regional geography of Africa. Saharan borderlands, East Africa and Southern Africa.

346 Pacific Islands and Australia (3)

Prerequisite: upper-division standing. The physical, cultural and regional geography of Australia, New Zealand, Melanesia, Micronesia and Polynesia.

349A The Arctic (1)

The far northern lands and seas, including the Arctic Basin, the Northwest Passage, Greenland and the Northeast Passage. Attention to the natural setting, exploration and recent developments in resource use. (3 hours lecture and discussion per week for 5 weeks)

349B The Antarctic (1)

An introduction to Antarctica, with attention to its natural setting, discovery and exploration, political status, resource use and techniques of living. (3 hours lecture and discussion per week for 5 weeks)

349C The Oceans (1)

The four oceans. Their discovery by Europeans; their appropriation; their use as commercial highways; their use as sources of food, fresh water and energy. (3 hours lecture and discussion per week for 5 weeks)

349D The Ocean Floors (1)

Prerequisite: upper-division standing. Depth and configuration of the sea floor. Living conditions at great depths. Entry by human beings. Extraction of natural resources. National claims to submarine territory. Submerged settlements. (3 hours lecture and discussion per week for 5 weeks)

350 Conservation and Ecology in America (3)

Prerequisite: upper-division standing. Environmental change and resource-use problems. Land ethics, environmental law, public policy and technological impacts.

352 The National Parks (3)

The park system and its evolution as related to conservation, preservation, and recreational land use. Cultural heritage and physical environment.

357 Social Geography—Perception and Behavior (3)

Prerequisite: Geography 160 or consent of instructor. Perception and behavior in various spatial settings in cultural and physical environments. Significance to social planning.

359 Topics in Human Geography (1)

Prerequisite: upper-division standing. Social, cultural, economic or political relationships and the environment. May be repeated for credit.

360 Economic Geography (3)

Prerequisite: upper division standing. The spatial distribution of economic activities: agriculture, manufacturing industries and tertiary services.

362 Geography of Wine (3)

Vineyards and wineries of California and the world. Physical, historical, economic and social factors and forces. (Age 21 or over)

370 Urban Geography (3)

Prerequisite: upper-division standing. American metropolitan systems and city-region linkages. Theories and spatial models of social and economic patterns within cities and suburbs; planning implications of these locational patterns.

377 Neighborhoods (3)

The significance of geographic neighborhoods and the role of minority groups in their origin, transformation and landscape expression.

381 Cartography (3)

Prerequisite: Geography core or consent of instructor. Compilation and construction of maps and graphs as geographic tools. The principles of effective cartographic representation. (1 hour lecture, 6 hours laboratory)

384 Airphoto and Image Interpretation (3)

Prerequisite: Geography core or consent of instructor. Use of aerial photography, space photography and other remote sensors as tools and research sources. Interpretation of physical and cultural elements of the landscape. (2 hours lecture, 3 hours laboratory)

385 Quantitative Geography (3)

Prerequisite: Geography core or consent of instructor. Spatial analysis and geographic application of descriptive and inferential statistics. Use of the electronic computer. (2 hours lecture, 2 hours activity)

386 Data Processing for Geographic Information (3)

Prerequisite: Geography core or consent of instructor. The digital computer in solving geographical problems. The acquisition of basic computer programming skills. Spatially-oriented problems. (2 hours lecture, 2 hours activity)

412 Regional Geomorphology of the United States (3)

Prerequisite: Geography 312 or consent of instructor. The major physiographic provinces of the United States. The record that present and past geomorphic processes have left on the landscape.

422 Regional Climatology (3)

Prerequisite: Geography 323 or consent of instructor. Major climatic regions of the world; the physical factors that produce climatic patterns.

426 The Coastal Environment (3)

Prerequisite: Geography 110, 325 and 312 recommended. An ecological approach to human's impact on coastal environments, emphasizing the West Coast of North America.

431 California Environmental Change (3)

Prerequisite: Geography 330 or 350 or consent of instructor. Impact of growth and development on rural and urban California.

450 Hazards, Disasters and Planning (3)

Prerequisite: Geography 350 or Earth Science 101 or 120. The hazardous environment; impact of hazards and disasters on land utilization and settlement; adaptive strategies in land use planning.

468 Law and Environment (3)

Prerequisite: Geography 350 or consent of instructor. The role of law in the management of resources and in environmental planning. Property and land use regulations.

472 Urban Dynamics and Planning (3)

Prerequisite: Geography 370 or consent of instructor. Urban development; the decentralizing forces operating in contemporary urban space; identification of trends in the planning process.

475 Interpretation of Urban Landscapes (3)

Prerequisites: Geography 357 or 370. In addition, consent of instructor. A geographic view of the city as a landscape composite of structure, space, place and experience. Emphasis is on the European and North American city.

481 Automated Cartography (3)

Prerequisite: Geography 381 or 386 or permission of instructor. Methods and applications of computer-assisted mapping and geographic information systems. (2 hrs discussion, 3 hrs lab)

484 Urban Planning Methods (3)

Prerequisite: Geography 472 or Political Science 424. Seminar and practicum on methods in urban planning. Analytical techniques and basic data sources. Population forecasting, housing surveys, economic development, fiscal impacts and area revitalization. Individual and team projects. (Same as PolSc 484)

488 Land Use Analysis (3)

Prerequisites: upper-division standing and consent of instructor. Urban and rural land use and settlement; geographic field problems. Application of geographic techniques and tools to local field studies.

489 Advanced Topics in Geo-Techniques (3)

Prerequisite: Geography 381, or 384, or 385, or 386 or consent of instructor. Selected topics pertaining to the theory and application of various geo-techniques. May be repeated more than once for credit as long as topic discussed is different.

495 Internship in Applied Geography (1-3)

Prerequisite: senior standing and consent of instructor. Students work specified number of hours in appropriate public or private organizations under the supervision of their staff and as coordinated by departmental faculty. Interns meet with instructor by arrangement. May be repeated for a maximum of three units of credit.

499 Independent Study (1-3)

Prerequisite: senior standing. Consent of instructor under whom study will be taken required before enrolling. May be repeated for a maximum of six units of credit.

500 Seminar in Geographic Research (3) (Formerly 590)

Prerequisites: graduate standing and consent of instructor. A required seminar to be taken prior to the development of a thesis.

530 Seminar: Selected Topics in Geography (3)

Prerequisite: graduate standing or consent of instructor. Various topics selected from any of the subfields of geography. The topic chosen and a general outline of the seminar are circulated prior to registration. May be repeated for credit.

597 Project (3)

Prerequisites: Geography 500 and consent of adviser.

598 Thesis (3)

Prerequisites: completion of Geography 500, advancement to candidacy and consent of instructor.

599 Independent Graduate Research (1-3)

Open to graduate students by consent of instructor. May be repeated for credit.

Gerontology Program

Program Coordinator: Rosalie Gilford

Program Office: McCarthy Hall 103

Programs Offered

Minor in Gerontology

Program Council

Tony Bell (Sociology), Peter Ebersde (Psychology), Rosalie Gilford (Coordinator), Roberta Rikli (Health, Physical Education, and Recreation), Don Schweitzer (School of Humanities and Social Sciences), Sandra Schwartz (Nursing), Ruth Truman (Extended Education), David Walkington (Biological Science)

INTRODUCTION

Gerontology is the study of aging. It is a multidisciplinary field that examines the biological, psychological and social changes experienced by most people during their adult lives. It also stresses the impact of the growing numbers and proportion of older persons on such major social institutions as family, economy, education, politics, religion, health and welfare, science, and technology.

The minor in gerontology helps to prepare students for careers in business, government, industry, public and private agencies, and health and human service organizations by providing them with knowledge and critical understanding of the processes of adult development and aging. Gerontology is a field of study which students may analyze with the concepts, theories and methods learned in their major area of study. It introduces students to the field of services to older people. It provides students with a firm grasp of the historical development and possible future forms and processes of relationships between age groups in society.

Majors That Complement the Minor in Gerontology

The Gerontology minor is available and appropriate to strengthen and otherwise complement the course

work of students in many majors. Notation of the minor appears on the transcript and the diploma.

Advisers

Students are advised to see a member of the Gerontology Program Council or the program coordinator prior to their first semester as a Gerontology minor. A flyer describing the minor in greater detail is available in the Gerontology Program office.

MINOR IN GERONTOLOGY

The gerontology minor consists of 21 units in the following areas:

Lower Division (3 units)

Sociology 133 Introduction to Gerontology (3)

Upper Division (12 units)

Sociology 333 Sociology of Aging (3)
Psychology 362 Psychology of Aging (3)
Biology 306 Biology of Aging (3)
Nursing 360 Promoting Health of Elderly (3)

Upper-Division Electives (6 units, adviser approved)

A 300/400 level course in a related field (3)
A 300/400 level internship in a related field (3)

Possible Electives

English 356 The Literature of Aging (3)
Human Services 385 Program Design and Proposal Writing (3)
Nursing 357 Health Promotion: Adult-Aged Nursing (3)
Philosophy 314 Medical Ethics (3)
Physical Education 454 Physical Activity and the Aging Process (3)
Sociology 433 Aging and Social Services (3)
Sociology 446 Aging and Sexuality (3)
Sociology 460 Death and Dying (3)

Additional elective courses are available in selected departments across campus.

Prize

Each year the Shirley Widaba prize for the best historical essay submitted is awarded.

BACHELOR OF ARTS IN HISTORY

The undergraduate major requires a total of 42 units distributed as follows:

Introductory Survey Courses

Western Civilization (6 units)

History 110A Western Civilization to 15th Century (3)
History 110B Western Civilization Since the 16th Century (3)

Department of History

Department Chair: James Woodward

Vice Chair: Jack Elenbaas

Department Office: Humanities 815F

Programs Offered

Bachelor of Arts in History

Minor in History

Master of Arts in History

Faculty

Gordon Bakken, Warren Beck, Leland Bellot,
Lauren Breese, Jack Crabbs, Lawrence de Graaf,
Robert Feldman, Nancy Fitch, Charles Frazee,
Arthur Hansen, B. Carmon Hardy, James Hofmann,
Harry Jeffrey, Samuel Kupper, Sheldon Maram,
Frederic Miller, Mougo Nyaggah, Michael Onorato,
David Pivar, Charles Povlovich, Jackson Putnam,
Ronald Rietveld, Danton Sailor,
Seymour Scheinberg, Gary Shumway,
Cameron Stewart, Ernest Toy,
David Van Deventer, Nelson Woodard,
James Woodward, Kinji Yada, Cecile Zinberg

Advisers

General Advisement: Michael Onorato, Seymour
Scheinberg and David Van Deventer

Graduate Adviser: Arthur Hansen

Graduation Checks: Michael Onorato

Single & Multiple Subject Waivers: Michael Onorato

INTRODUCTION

History is the study of the manifold activities of men and women in the past as conveyed to us by a variety of analytic, interpretive and narrative studies of evidence of man's past activities and the study of that evidence for the purpose of creating new historical works. Given this broad scope, the discipline of history draws upon both the subject matter and the methods of many of the academic disciplines in the university. For example, Social History employs the methods of the social sciences, including quantitative analysis, in examining social movements and issues in the past; Psychohistory utilizes the approaches of psychology in the study of the behavior of historically significant individuals and groups; and the development of the various areas of human intellectual and cultural activity, for instance the arts and sciences, are studied to inform us of how and why people have thought as they did. The purpose of the study of history is to acquire knowledge of important past events and their causes so that the student may better understand individual and collective human behavior in the context of the way in which people have actually lived.

Lower-division survey courses are designed to convey the broad sweep of past human events and introduce the student to the study of causation and historical source materials. Aspects of the philosophy and methodology of history and the mechanics of writing historical essays are addressed in History 300A and 300B. The study, in greater depth, of specialized historical topics comprises the bulk of the upper division offerings of the department. And ultimately, the student majoring in history will take a seminar on a special topic in which s/he is expected to write an original historical essay based chiefly upon the analysis of historical materials that date from the time of the events studied.

The history major is intended for students who: (1) seek a broad liberal arts education with the option to choose more specialized study by geographical region, epoch and focus of inquiry (cultural, social, etc.); (2) plan a career in government service; including positions in United States Government agencies and international organizations overseas; (3) desire to study law; (4) intend to prepare for primary or secondary school teaching; or (5) intend to work for advanced degrees in history in preparation for college teaching.

Credential Information

Teaching credentials require specific study plans and students are urged to seek advice from an adviser early in their course of study.

Oral History

The Oral History Program, under the aegis of the Department of History, is one of the most comprehensive university-based oral history programs in the nation. In addition to offering course work in interviewing techniques, technical processing methodology and community fieldwork, the program administers an assortment of ethnic, political and regional projects and is the home of the *Oral History Review*, the journal sponsored by the National Oral History Association. The current director of the program is Arthur Hansen.

Pre-Professional Information

Students intending careers in government service or business should seek counsel from an adviser. Those planning to pursue graduate study in history should consult a faculty member of their choice. Those who expect to attend law school should plan their course of study with either Professors Bakken, Bellot, Hardy or Kupper.

Prize

Each year the Shirley Weleba prize for the best historical essay submitted is awarded.

BACHELOR OF ARTS IN HISTORY

The undergraduate major requires a total of 42 units distributed as follows:

Introductory Survey Courses

Western Civilization (6 units)

History 110A Western Civilization to 16th Century (3)

History 110B Western Civilization Since the 16th Century (3)

American History (6 units)

History 170A United States to 1877 (3) and
History 170B United States Since 1877 (3)

or

History 180 Survey of American History (3)
or History 190 Survey of American History
with Emphasis on Ethnic Minorities (3)
and either 170A (3) or 170B (3).

Intermediate Requirements (24 units)

History 300A Historical Thinking (3)

History 300B Historical Writing (3)

At least 6 units in each of the following areas:

United States History

European and Ancient Mediterranean History

Latin American, Asian and African or Middle Eastern History

Advanced Requirements (6 units)

History 490 Senior Research Seminar (3)

One upper-division history elective (3)

MINOR IN HISTORY

1. Lower-division course work—6 or 9 units
(including general education)

2. Upper-division course work—15 or 18 units
(including History 300A or 490)

A total of 24 units is required for the minor in history.

To complete 24 units, the student has the option of taking the last three units either in the *introductory requirements* or the *upper-division course work*.

MASTER OF ARTS IN HISTORY

The Master of Arts degree in history is designed to provide a course of study for those whose interests are in teaching, business, government service and the professions as well as for personal enrichment. It offers all the basic requirements for those who intend to pursue a doctoral degree upon the completion of their study at California State University, Fullerton.

Prerequisites

Applicants to the Master's program must first fulfill all requirements for admission to graduate standing in the University. A student must have a baccalaureate degree from an accredited institution with a grade-point average of at least 2.5 in the last 60 semester units. After fulfilling the university requirements, the applicant's records are sent to the History Department's graduate coordinator for evaluation. Students with deficiencies will be considered for admission only after they have completed courses approved by the coordinator.

Study Plan

Each student determines his or her study plan with the graduate coordinator and an adviser in the area of specialization before commencing course work. Two plans are offered: Plan I, in which one specific field of interest is developed, requiring a written thesis or project (with an oral examination taken before the final draft); Plan II, in which written comprehen-

sive examinations in two fields of either (1) American, (2) European or (3) Latin American-Asian-African areas must be taken.

Thirty units of work are required for the master's degree. All students must complete the following courses:

History 502 History and Historians
History 503 Theory and History
History 504 Historical Research
History 520 or 570 Field Seminar

In addition, six more units of 500-level course work must be taken, making a total of 18. The remaining 12 units may be taken in 400 level or graduate courses, only one of which must be taken in history. A grade of "B" must be obtained in these courses for them to count toward the degree.

Before advancement to candidacy, a cultural understanding or research skill requirement must be met. This may be fulfilled in a variety of ways: (1) an examination on reading ability in a foreign language, (2) completion of 12 units of comparative studies in other departments appropriate to the student's program, (3) an examination or courses taken in statistics, or (4) courses and certification by the oral history director.

For further information call the Dept. of History.

History Courses

110A Western Civilization to the 16th century (3)

Western Civilization from its origins to the 16th century.

110B Western Civilization Since the 16th century (3)

Western Civilization from the 16th century to the present.

170A United States to 1877 (3)*

The political, social, economic and cultural development of the United States to 1877. Old World background, rise of the new nation, sectional problems, the Civil War and Reconstruction.

170B United States Since 1877 (3)*

U.S. History from the late 19th century to the present. Economic transformation, political reform movements, social, cultural, and intellectual changes, and the role of the United States in world affairs.

180 Survey of American History (3)*

American history from prehistoric times (before 1492) to the present according to chronological time periods. Basic themes which pervade the entire sweep of the nation's history. Satisfies state requirement in U.S. History. Not available for credit to students who have completed History 190.

190 Survey of American History with Emphasis on Ethnic Minorities (3)*

A survey of American history from prehistoric times (before 1492) to the present with special emphasis on the role of race and ethnicity. (Same as Afro-Ethnic Studies/Chicano Studies 190). Credit will not be given for both History 180 and 190.

*Both History 170A and 170B or History 180 or History 190 must be taken to satisfy the state requirement in U.S. history.

230 The Ascent of Man (3) (Formerly History 231)

Science and technology in the development of human culture, especially the development of science in western culture since the 17th century. Scientific concepts, their emergence and the social impact of science.

270 Women in American History (3)

A history of women and feminism in American history from the 19th century through the 20th century. Focus is primarily upon the first women's movement and general changes in the status of women in society.

300A Historical Thinking (3)

The nature of history, history of historical thought, and history's relationship to the humanities and social sciences. Seminar required of all history majors.

300B Historical Writing (3)

Prerequisite: History 300A (may be taken concurrently). Research and writing as related to historical topics. Meets the classroom portion of the upper-division writing requirement for history majors. Seminar required of all history majors.

303A,B Historical Dimension of Liberal Studies (3,3)

The origins and development of modes of thought and forms of expression in the three core areas of liberal studies, the natural sciences, the social sciences, and the arts and humanities.

310 Behind the Lines: World War II (3)

World War II. The home fronts, military occupation, the resistance, espionage, genocide and the war in historical perspective. Extensive use of films.

340 Ancient and Medieval Britain (3)

Britain from 55 B.C. to 1485. The constitutional, institutional and cultural aspects of Roman, Celtic, Anglo-Saxon, Norman and Plantagenet Britain.

341 Tudor-Stuart England (3)

England from the accession of Henry VII to the Glorious Revolution. The political, institutional, ecclesiastical and cultural aspects of the period of the Tudors and Stuarts.

342 History of Modern England and Great Britain (3)

Modern British history (Glorious Revolution to present). The achievement of constitutional monarchy, transition from agrarian to industrial society, establishment of political democracy and the rise of socialism.

350 History of Latin American Civilization (3)

Prerequisite: Completion of general education requirement in History of Western Civilization. The social, economic, political and cultural evolution of Latin America from the European conquest to the present.

355 History of African Civilization (3)

Examines the social, political, economic and cultural evolution of African civilizations from early times to the present. Credit will not be given for both History 355 and Afro-Ethnic Studies 346.

360 Modern Asia: Nationalism & Revolutionary Change (3)

Prerequisite: Completion of general education requirement in History of Western Civilization. A modular analysis of nationalism, revolution and modernization as drawn from the experiences of the countries of China, Japan, India and Southeast Asia.

370 American Sex Reformers (3)

Prerequisite: Completion of general education requirement in American History & Culture. Sex reform and its implication

- for social thought and behavior. Sex reformers to be considered are Havelock Ellis, Charlotte Perkins Gilman, Alfred Kinsey, William Masters and Virginia Johnson, and David Reuben.
- 380 Canada, 1534-1967 (3)**
Canadian history from the founding of New France and the rise of British power in North America to the establishment of an independent Canadian nation which celebrated the centenary of self-governing status in 1967.
- 383 History of California (3)**
The political, economic and social history of California from the aboriginal inhabitants to the present; the development of contemporary institutions and the historical background of current issues.
- 384 Leisure in America: A Social History (3)**
Leisure in America from the colonial period to the present. The contest in the early period between man's urge to play and the Puritan work ethic until the contemporary triumph of the fun society. (Same as Recreation 384)
- 386A American Social History 1750-1860 (3)**
Prerequisite: Completion of general education requirement in the American History & Culture. A social history of the United States to the Civil War; reform movements, temperance, moral purity, women's rights, anti-slavery, spiritualism and their importance to the formation of a modern society. (Same as American Studies 386A)
- 386B American Social History 1865-1930 (3)**
Prerequisite: Completion of general education requirement in American History & Culture. A social history of the United States from the Civil War; reform, social organization and values. The women's movement, censorship, divorce, the child and the limits of reform movements in an organizational society. (Same as American Studies 386B)
- 394 The American Civil War (3)**
Prerequisites: History 170A or 180 or consent of instructor. A history of the American Civil War. Both contemporary and current analyses of the war will be amplified by the use of films and slides.
- 395 A History of the First World War (3)**
Prerequisite: History 110B or consent of instructor. A history of the Great War stressing the military, social, economic and political aspects of the war. Films, documentaries and special lectures.
- 396 Introduction to Public History (3)**
Prerequisites: History 180 or its equivalent. Applications of history to activities outside of teaching and academic research. Will introduce archival work, historic preservation, exhibit interpretation, and historical research and writing in business, government and individual consulting.
- 401 European Intellectual History from 1500 to the Present (3)**
The competing ideas in European history from 1500 to the present which have shaped modern European institutions.
- 405 History of the Jews (3)**
The Jewish people from the biblical period to the present. The literature of each period as well as the relationships which exist between the Jewish communities and the societies in which they exist. (Same as Religious Studies 405)
- 407 War and Civilization (3)**
The political and social implications of modern warfare, of the development of military technologies and of changing concepts of military organizations.
- 410 World War II (3)**
A history of World War II: Films, documentaries, lectures and discussion.
- 415A Classical Greece (3)**
The civilization of ancient Greece. The rise and flourishing of the classical city-states; the literary and philosophic contributions to modern civilization.
- 415B Hellenistic Civilization (3)**
The Hellenistic synthesis and the new patterns in government, the arts and sciences, philosophy and literature between the Macedonian conquest and the intervention of Rome.
- 417A Roman Republic (3)**
Roman social and political institutions under the republic.
- 417B Roman Empire (3)**
Roman imperial institutions and culture with attention to the rise of Christianity.
- 419 The Byzantine Empire (3)**
The East Roman Empire from Constantine to the Ottoman conquest of 1453. Institutional aspects of Byzantine society: church, state, the economy, law and culture.
- 421A History of the Christian Church to 1025 (3)**
The Christian Church from its origins in the apostolic preaching through the Middle Ages in both the East and West. (Same as Religious Studies 421A)
- 421B History of the Christian Church from 1025 to the Present (3)**
The western church as an institution from 1025 to the present. Orthodoxy, Catholicism and Protestantism in historical perspective. (Same as Religious Studies 421B)
- 423 Medieval History, 300-1350 (3)**
Medieval civilizations--East European, West European, and Islamic--from the decline of the Roman Empire to the beginning of the Hundred Year's War, with emphasis on cultural, intellectual, and social history.
- 425A The Renaissance (3)**
Europe from 1400 to 1525. The beginnings of capitalism, the beginnings of the modern state, humanism, the pre-Reformation and the church on the eve of the Reformation.
- 425B The Reformation (3)**
Europe from 1525 to 1648; The Protestants and Catholic Reformations; the religious wars; the price rise; royal absolutism; the rise of science.
- 426 Rise of Modern Europe, 1648-1763 (3)**
Prerequisite: History 110B. European diplomatic history and the balance of power from 1648 to 1763. The social and philosophical developments of the period.
- 429 Europe Since 1914 (3)**
A survey of European history from 1914 to the aftermath of World War II.
- 430 History of Science: Copernicus to the Present (3)**
Prerequisites: Completion of general education sections. Science from the 16th century to the present especially the

scientific revolutions of the 17th and 20th centuries and the interaction between science, technology and culture.

434A Russia to 1890 (3)

The establishment of the Russian state at Kiev through the great reforms, the revolutionary movement and reaction of the 19th century. The shaping of contemporary Russia.

434B The Russian Revolutions & the Soviet Regime (3)

The 1905 and 1917 revolutions and the subsequent consolidation of power under the Communist regime. The continuity and change in Russian social, political, cultural institutions and foreign policy effected by the impact of Marxist-Leninist-Stalinist ideology.

437 East Europe (3)

The political and social history of the central East European peoples.

442 British Constitutional History from the Restoration to the Present (3)

Prerequisite: History 340 or 341 or 342, or Political Science 375 or consent of instructor. Evolution of responsible government and the rule of law in Great Britain and dependent countries from the Age of Aristocracy, through industrialization and democratization, into an era of war and centralization.

452 20th-Century Brazil (3)

Prerequisite: Completion of general education requirement in History of Western Civilization. Social, economic, cultural, and political history of Brazil, with particular emphasis on the post-World War II period.

453 Modern Mexico (3)

The background of the Mexican Revolution of 1910; the Revolution itself from 1910 to 1921; the political, economic and social features; the Revolution as the first of the great upheavals of the 20th century.

455 Latin America Since 1945 (3)

Prerequisite: Completion of History 110A-B or consent of instructor. Focuses on political, economic, cultural and social patterns in key Latin American nations from 1945 to the present.

458 Southern Africa in the 20th Century (3)

Twentieth-century developments in the Union (Republic) of South Africa, Central Africa (the Rhodesias and Nyasaland) and the Portuguese colonies; the political, economic and social ramifications of race relations.

462A History of China (3)

Chinese history from ancient times to the middle of the 17th century; society, thought, economy and political institutions.

462B History of China (3)

Chinese history from the middle of the 17th century to the 1950's. China's internal developments and foreign intrusion, the rise of modern Chinese nationalism and intellectual developments in the Republican period, and the attempts at modernization and the triumph of communism.

462C China Since 1949 (3)

History of China from 1949 to the present. The Communist Party, political institutions, ideology, economic modernization and foreign relations of China.

463A History of Japan (3)

The social, political, and economic history of Japan until 1868 stressing the Tokugawa era.

463B History of Japan (3)

The rise of the modern Japanese state, Japanese imperialism and the postwar era.

464A History of Southeast Asia, 1850-1945 (3)

Southeast Asia under the impact of the imperialism and the effects of the Pacific War on the European empires.

464B History of Contemporary Southeast Asia (3)

Southeast Asia since the Pacific War to the present. The problems of the area and American involvement in Southeast Asia.

465A History of India (3)

Prerequisite: Completion of general education requirement in History of Western Civilization. Survey of the history of India from ancient times through the arrival of Islam to the decline of the Mughul Empire in 18th century. Political developments, social and religious institutions: Hinduism, Buddhism, Jainism, class, caste; early impact of Europeans.

465B History of India (3)

India from early activities of British in 18th century through Indian Independence 1948. Political, economic, religious developments; crystallization of British supremacy in South Asia through the Indian Mutiny of 1857; India's struggle for independence; emergence of Gandhi and Nehru.

466A Islamic Civilization: Arab Era (3)

Arab predominance in the Middle East from the rise of Islam to the Mongol invasions of the 13th century.

466B Islamic Civilization: Imperial Age (3)

The Mongol invasions of the Middle East and their effects. The Ottoman Turkish, Safavid Persian and Moghul Empires down to A.D. 1800.

467 The Middle East in the 19th Century (3)

Western penetration of the Middle East and the reaction to it, modernization, the growth of nationalist movements and revolutionary disturbances ending with World War I.

468 Middle East in the 20th Century (3)

Social, political and economic changes in the Middle East since World War I. The period after World War II and recent independence movements.

470 American Colonial Civilization (3)

Prerequisite: History 170A or 180 or consent of instructor. Analyzes the creation and development of societies in English North America from 1492-1754; the emergence of economic, social and political patterns and structures in a maturing Anglo-American culture.

471 The United States from Colony to Nation (3)

Prerequisite: History 170A or 180 or consent of instructor. Social, economic, political and intellectual developments in late 18th-century America, the coming of American Revolution, origins of American nationalism, social structure of the new nation, and formation and ratification of the Constitution.

472 Jeffersonian Themes in American Society, 1800-1861 (3)

Prerequisite: Completion of general education requirements in American institutions and values. Jeffersonian values and their impact upon the social, political and cultural life of the nation.

473 Democracy on Trial 1845-1877 (3)

Prerequisite: completion of general education section on Statutory Requirements in American Institutions and Values. America's "great national crisis" and the impact of slavery, civil war and national reconstruction upon the democratic process of the republic.

474 The United States 1876-1914 (3)

American industry and its impact upon American life. The populist and progressive reform movements.

- 475 America Comes of Age, 1914-1945 (3)**
Major trends in U.S. domestic policy, foreign policy, economy and society from World War I through World War II. Conflicting values and ideals of domestic policy and U.S. role in world affairs.
- 476 United States Since 1945 (3)**
U.S. History from 1945 to the present; the interrelationship of foreign policy, economic prosperity, domestic tensions and protest movements.
- 478 The History of Orange County (3)**
The history of Orange County. Stress on the process of urbanization.
- 479 The Urbanization of American Life (3)**
Urban life in America; the colonial town, the western town and the industrial city.
- 480 Development of American Law (3)**
Prerequisite: History 170A or 170B. American law; contracts, property, commercial law, criminal law, corporations, torts, civil procedure and the legal profession.
- 481 Westward Movement in the United States (3)**
The expansion of the United States population and sovereignty from the eastern seaboard to the Pacific, colonial times to 1900; regional development during the frontier period.
- 483 American Religious History (3)**
Prerequisite: Completion of general education requirement in American Institutions & Values. American religious life and the proliferation of religious organizations as the result of the transplanting of European Christianity in the new environment. (Same as Religious Studies 483)
- 484 American Legal and Constitutional History (3)**
Examination of legal and constitutional issues affecting the development of the U.S. Constitution, American law and government. The course will survey developments from English and colonial legal origins to constitutional problems of the post-World War II era.
- 485 United States Foreign Relations (3)**
Relations from 1900 to the present. The United States as a world power in the 20th-century; the search for world order and the diplomacy of the atomic age.
- 486 United States Cultural History (3)**
The social and intellectual development of the United States from the Civil War to the present.
- 487 History of American Parties and Politics (3)**
Development of American political parties and issues from 1787 to the present. Analyzes the evolution and change in American political parties and the recent impact of mass media upon them.
- 488 Black America Since 1890 (3)**
Black Americans from Booker T. Washington to present; their culture and role in American life and the issues involved in their relations with other segments of the population in various regions.
- 490 Senior Research Seminar (3)**
Directed research seminar with class discussions applied to specific topics and areas as schedule and staff allow. Original research and writing. Required of all history majors. Various topics may be repeated for credit.
- 491 Proseminar in Special Topics in History (3)**
Prerequisite: completion of General Education Section I. Intensive study of selected phases or periods of history. May be repeated for credit with different subject matter.
- 492 Community History (3)**
Historical development communities in general including the Orange County area. Techniques of gathering and processing local historical data, including oral interviews and other archival materials.
- 493 Oral History (3)**
The utilization of tape recorded interviews to document significant events in 20th-century history. Training will be given in interviewing techniques, specific background research and equipment use, after which students conduct a number of tape recorded interviews.
- 494 Oral History Editing and Indexing (3)**
Prerequisite: senior standing and consent of instructor. Techniques of editing, book and photo layout, and indexing. Focuses on oral history documents but includes other historical and technical editing.
- 498 History Internship (3)**
The internship program offers work experience related to the history academic program or to areas of public and private employment where any liberal arts major is appropriate.
- 499 Independent Study (1-3)**
Open to advanced students in history with consent of department chair. May be repeated for credit.
- 502 History and Historians (3)**
Prerequisite: consent of instructor. Seminar in historical criticism where students examine modern historians for their methods and methodologies, their abilities to enlarge conceptions of history, and for the manner in which the historical profession receives new knowledge and methods.
- 503 Theory and History (3)**
Prerequisite: History 502 or consent of instructor. Seminar introducing student to philosophical issues in history as a humanistic social science, to epistemological considerations of the relationship of history to other disciplines, and to new subdisciplines in history. Required for the M.A.
- 504 Historical Research (3)**
Prerequisites: History 502, 503 or consent of instructor. Theory applied to particular historical topics. Students will develop theoretical and analytical frameworks that are effective in explaining the historical problem under consideration. Seminar required for the M.A.
- 520 Seminar in European History (3)**
Prerequisite: consent of instructor.
- 570 Seminar in American History (3)**
Prerequisite: consent of instructor.
- 597 History Project (3 or 6)**
The editing of a significant body of primary source materials, including a critical and interpretive introduction as well as appropriate reference and explanatory notes. Foreign sources will normally be translated into English.
- 598 Thesis (3 or 6)**
Prerequisite: consent of instructor. May be repeated for credit.
- 599 Independent Graduate Research (1-3)**
Open to graduate students in history with consent of department chair. May be repeated for credit.

Latin American Studies Program

Program Coordinator: James Dietz
Program Office: McCarthy Hall 103

Programs Offered

Bachelor of Arts in Latin American Studies

Minor in Latin American Studies

Program Council

Oswaldo Arana (Foreign Languages), Nancy Baden (Foreign Languages), Warren Beck (History), Ruth Capelle (Art), Isaac Cardenas (Chicano Studies), James Dietz (Economics), Roger Dittman (Physics), Dagoberto Fuentes (Chicano Studies), Ana Garza (Education), Ron Harmon (Foreign Languages), William Hobbs (Criminal Justice), Arturo Jasso (Foreign Languages), Leroy Joesink-Mandeville (Anthropology), Paul Kane (Education), Jackie Kiraithe (Foreign Languages), Irene Lange (Marketing), John Lafky (Economics), Sheldon Maram (History), Lon McClanahan (Biological Science), Michael Mend (Sociology), (Foreign Languages), Joseph Platt (Chicano Adolfo Ortega (Chicano Studies), Ervie Pena Studies), Marlene de Rios (Anthropology), Gerald Rosen (Sociology), Bruce Wright (Political Science).

Adviser

Undergraduate: James Dietz

INTRODUCTION

Latin America is our closest neighbor and is an underdeveloped region with vast potential. Countries range in size from the small islands of Puerto Rico and the Dominican Republic to resource-rich Brazil, which is larger than the continental United States. Most of these countries face fundamental economic and social problems which must be solved if extremes of wealth and poverty are to be overcome, more jobs are to be available, health care is to be improved, illiteracy is to be conquered, and democracy and social justice are to prevail.

Students of Latin American Studies learn about these problems and begin to develop the knowledge necessary to contribute to helping our Latin American neighbors help themselves. By pursuing a broad yet in-depth course of study, Latin American Studies students are well equipped to enter many fields and occupations—as teachers in the United States or Latin America, as business people sensitized to Latin American history and culture, as Peace Corp volunteers or missionaries, or as journalists, lawyers, doctors—where contact with Latin America or Latin Americans in the United States is important.

4638 History of Japan (3)
 The rise of the modern Japanese state, Japanese imperialism and the postwar era.

The Latin American Studies major is designed to provide an in-depth, interdisciplinary understanding of Latin America. Majors develop language proficiency in both Spanish and Portuguese and have a broad range of courses from which to choose in anthropology, economics, history, geography, political science, and foreign languages and literature. The major is well-suited for: (1) students who wish to pursue careers which require residence in or knowledge of Latin America (e.g., business, journalism, government); (2) those who plan to teach Spanish and/or social sciences in the secondary schools; and (3) students who wish to pursue graduate work in Latin American Studies or other disciplines where a Latin American specialization would be helpful (e.g., political science, economics, history).

BACHELOR OF ARTS IN LATIN AMERICAN STUDIES

Foundation Courses

All majors should develop a language proficiency level equivalent to Spanish 204 and Portuguese 102. Students with no language background should take:

- Spanish 101 Fundamental Spanish—A (5)
- Spanish 102 Fundamental Spanish—B (5)
- Spanish 203 Intermediate Spanish—A (3)
- Spanish 204 Intermediate Spanish—B (3)
- Portuguese 101 Fundamental Portuguese—A (4)
- Portuguese 102 Fundamental Portuguese—B (4)

A student with a knowledge of Spanish and/or Portuguese may be able to meet part or all of the foundation course requirements by taking a test administered by the Department of Foreign Languages and Literatures.

Required Fields of Study

Language (3 units):

- Spanish 317 Advanced Conversation and Composition (3) *or*
- Portuguese 317 Advanced Conversation and Composition (3)

History and Culture (9 units):

- Spanish 316 Intro to Spanish American Civilization (3)
- or* Portuguese 325 Contemp Brazilian Civilization (3)
- and History 350 History of Latin American Civilization (3)
- and three additional units in upper-division Latin American history

Social Science (6 units) selected from two departments:

- Anthro 324A The Ancient Maya (3)
- Anthro 324B Aztecs & Their Predecessors (3)
- Anthro 325 Peoples of South America (3)
- Anthro 326 Archeology of South America (3)

- Economics 333 Economic Development: Analyses and Case Studies (3)
- Economics 334 Economics of Latin America and the Caribbean (3)
- Geography 333 Latin America (3)
- Poli Sci 430 Government and Politics of a Selected Nation-State (3)*
- Poli Sci 431 Government and Politics of a Selected Area (3)*
- Poli Sci 452 Foreign Policy of a Selected Country or Group of Countries (3)*

Elective Fields of Study

Twelve units selected from three or more of the following groupings chosen in consultation with the program coordinator:

I. Culture:

- Anthro 324A The Ancient Maya (3)
- Anthro 324B Aztecs & Their Predecessors (3)
- Anthro 325 Peoples of South America (3)
- Anthro 326 Archaeology of South America (3)
- Chicano 302 Ancient Mexican Culture (3)
- Chicano 403 Cultural Differences in Mexico and the Southwest (3)
- Portuguese 320 Introduction to Luso-Brazilian Culture and Civilization (3)
- Portuguese 317 Advanced Conversation and Composition (3)
- or* Portuguese 318 Advanced Conversation and Composition
- or* Spanish 317 Advanced Conversation and Composition
- Portuguese 325 Contemporary Brazilian Civilization (3)
- or* Spanish 316 Introduction to Spanish American Civilization (3)
- Spanish 416 Contemporary Spanish-American Culture (3)

II. Fine Arts and Literature:

- Art 460B Pre-Columbian Art (3)
- Chicano 430 Evolution of Mexican Literature (3)
- Chicano 433 Mexican Literature Since 1940 (3)
- Portuguese 441 Brazilian Literature (3)
- or* Spanish 441 Spanish-American Literature (3)
- Spanish 466 Intro to Spanish Linguistics (3)
- Spanish 485 Senior Seminar: Topics in Spanish American Literature (3) (with consent of program coordinator)

III. History and Politics:

- History 452 20th-Century Brazil (3)
- History 453 Modern Mexico (3)
- History 455 Latin Amer Since 1945 (3)
- Poli Sci 430* Government and Politics of a Selected Nation-State (3)
- Poli Sci 431* Government and Politics of a Selected Area (3)
- Poli Sci 452* Foreign Policy of a Selected Country or Group of Countries (3)

*Latin American focus only

IV. Geography and Economics:

- Economics 333 Economic Development: Analyses and Case Studies (3)
- Economics 334 Economics of Latin America and the Caribbean (3)
- Geography 333 Latin America (3)

V. Latin American Studies:

- Latin Amer Studies 399 Directed Studies(1-3)

MINOR IN LATIN AMERICAN STUDIES

The *minor* in Latin American Studies is designed to complement other majors for which a focus on Latin America can be beneficial (e.g., history, international business, communications, Spanish, economics and political science). Prospective secondary teachers may find this minor particularly attractive. The minor requires proficiency in either Spanish or Portuguese, as defined above for the major; 3 units of cultural history (History 350 or Spanish 316 or Portuguese 325); and 12 units of *approved* electives from at least three departments listed below:

- Anthro 324A The Ancient Maya (3)
- Anthro 324B The Aztecs and Their Predecessors (3)
- Anthro 325 Peoples of South America (3)
- Anthro 326 Archaeology of South America (3)
- Chicano 302 Ancient Mexican Culture (3)
- Chicano 403 Cultural Differences in Mexico and the Southwest (3)
- Chicano 430 The Evolution of Mexican Literature (3)
- Chicano 433 Mexican Literature Since 1940 (3)
- Chicano 440 Mexican Intellectual Thought (3)
- Chicano 453 Mexico Since 1906 (3)
- Economics 333 Economic Development: Analysis and Case Studies (3)

- Economics 334 Economics of Latin America and the Caribbean (3)
- Spanish 310 Spanish in the Business World (3)
- Spanish 316 Introduction to Spanish-American Civilization (3)
- Spanish 416 Contemporary Spanish-American Culture (3)
- Spanish 441 Spanish-American Literature (3)
- Spanish 485 Senior Seminar: Topics in Spanish-American Literature (3)
- Portuguese 310 Portuguese in the Business World (3)
- Portuguese 325 Contemp Brazilian Civilization (3)
- Portuguese 441 Brazilian Literature (3)
- Geography 333 Latin America (3)
- History 452 20th-Century Brazil (3)
- History 453 Modern Mexico (3)
- History 455 Latin Amer Since 1945 (3)
- Poli Sci 430* Government and Politics of a Selected Nation-State (3)
- Poli Sci 431* Government and Politics of a Selected Area (3)
- Poli Sci 452* Foreign Policy of a Selected Country or Group of Countries (3)

*Latin American focus only.

Latin American Studies Course

399 Directed Study (1-3)

Prerequisite: approval of program coordinator. Supervised individual or small group study as an elective. May be repeated for credit with different content.

Liberal Studies Program

Program Coordinator: Ronald Clapper
Program Office: McCarthy Hall 103

Programs Offered

Bachelor of Arts in Liberal Studies

Faculty

Ronald Clapper

Program Council

Gaylen Carlson (Science Education),
Ronald Clapper (Coordinator), Carol Copp
(Sociology), John Cronquist (Philosophy),
George Enell (Speech Communication), Gerald
Gannon (Mathematics), Jane Hipolito (English),
James Hofmann (History), Stewart Long
(Economics), E. James Weaver (American Studies),
Ronald Wood (Theatre and Dance)

Advisers

Undergraduate: Ronald Clapper, Leon Gilbert

INTRODUCTION

Liberal Studies is interdisciplinary study in the humanities and arts, science, and the social sciences. It includes the origin and development of each of these areas and a comparison of their methods and concepts.

The major in Liberal Studies is designed for students who desire the broadest possible liberal education: (1) as preparation for teaching all subjects in the elementary school classroom; (2) as an alternative approach to careers in business; (3) as preprofessional preparation for entry into professional schools in the health sciences, law, ministry, etc.; (4) as a means of obtaining specific occupational requirements that cannot be met from course work in a single department; (5) and as a source of personal growth and development.

Credential Information

Students seeking a Multiple Subjects (Elementary) Teaching Credential must either pass the Core Battery of the National Teachers' Examination or complete an approved Waiver Program at CSUF or another institution. Students who wish to complete the Multiple Subjects Waiver Program at CSUF along with their course work in the liberal studies major should consult a liberal studies adviser.

Recommended Program in General Education:

Students seeking a Multiple Subjects (Elementary) Teaching Credential who wish a waiver for the Core Battery of the National Teachers' Examination should consult a liberal studies adviser in order to

coordinate general education and waiver requirements.

BACHELOR OF ARTS IN LIBERAL STUDIES

I. All liberal studies majors must take the following core courses:

1. History 303A, B Historical Dimension of Liberal Studies (3-3)**
2. Philosophy 304 Methods of Inquiry (3)
3. Speech Comm 305 Liberal Studies in Communication Processes (3)
4. Liberal Studies 306 Liberal Studies in Humanities and Arts (3)
5. Liberal Studies 307 Liberal Studies in the Sciences (3)
6. Liberal Studies 308 Liberal Studies in the Social Sciences (3)

II. Liberal studies majors may take either of the following plans:

A. Elementary Education Plan (30 units)

1. English 301 Advanced College Writing*
2. English 303 Structure of Modern English (3)*
3. English/Comp Lit 110-111 (6) or Comp Lit 324-325 (6) World Literature*
4. Math 303A, B Fundamental Concepts of Elementary Mathematics (3,3)*
5. Sci Ed 310 Phys Science Concepts (3)* or Sci Ed 453 Life Science Concepts (3)*
6. Upper-division social science electives in Afro-ethnic studies, American studies, anthropology, Chicano studies, criminal justice, economics, geography, history, political science, psychology or sociology (3 units)
7. Upper-division electives in art or music (3 units)
8. Upper-division humanities electives in Afro-ethnic studies, American studies, Chicano studies, foreign languages and literatures, philosophy, religious studies or theatre (33 units)

*In exceptional cases substitutes may be made with the approval of the program coordinator and the department concerned.

**These courses will also count toward meeting the upper-division unit requirement for general education.

B. Thematic Plan

1. The Personalized Coordinated Program (24 units)

The student chooses a topic that includes study in several academic fields and then pursues that topic by developing, in consultation with a liberal studies adviser, a personal study plan of upper-division course work. The courses may be selected from each of the three major areas of human knowledge (humanities and arts, science, and social sciences), in which case a minimum of six units must be chosen from each area; or the courses may be selected from two of the three areas of human knowledge, in which case not more than 15 units may be chosen from one area and not more than nine units from one department. (Note: Students must have their study plan approved by a liberal studies adviser prior to taking course work.)

2. The Senior Project (6 units)

The student applies some of the knowledge obtained from courses taken in the personalized coordinated program by completing a project which involves research and/or creative work under the direction of an instructor of the student's choice.

- a. English 301 Advanced College Writing (3)
- b. Any 499 Independent Study (3) (The student will enroll in the department of the instructor who has been chosen to direct the project.)

Liberal Studies Courses

306 Liberal Studies in the Humanities and Arts (3)

Prerequisite: completion of arts-humanities general education requirement. An interdisciplinary approach to the humanities and arts which examines their purposes, structures and major developments in this century.

307 Liberal Studies in the Sciences (3)

Prerequisite: completion of natural sciences general education requirement. The nature of the scientific enterprise, contemporary models in physical and biological sciences; and the role of science in society.

308 Liberal Studies in the Social Sciences (3)

Prerequisite: completion of social science general education requirement. An interdisciplinary introduction to modern social science in which major thinkers, ideas, movements and problems will be approached historically, comparatively and analytically.

Department of Linguistics

Department Chair: Alan Kaye
Department Office: Education Classroom 622
Laboratory for Phonetic Research: Education Classroom 630D.

Programs Offered

Bachelor of Arts in Linguistics

Minor in Linguistics

Master of Arts, Linguistics

Faculty

Angela Della Volpe, Alan Kaye,
James Santucci

Adjunct Faculty

Ralph Beckett (Speech Communication),
Samuel Cartledge (Foreign Languages),
Ronald Harmon (Foreign Languages),
Jacqueline M. Kiraithe (Foreign Languages),
Kurt P. Kitselman (Speech Communication),
Thomas P. Klammer (English),
Marcial Prado (Foreign Languages),
Ronald Riggio (Psychology),
Otto J. Sadovszky (Anthropology),
Muriel R. Schulz (English),
Donald A. Sears (English),
William R. Smith (Psychology),
Arden Thorum (Speech Communication),
Jon E. Zimmerman (Foreign Languages)

Advisers

Undergraduate: Angela Della Volpe
Graduate: Alan Kaye

INTRODUCTION

Linguistics is the study of language. Like other rapidly developing fields, linguistics resists simple classification into one of the traditional categories of academic disciplines. As one of the humanities, linguistics is concerned with the historical development of a particular language or language family. As a social science, linguistics may be related to anthropology in describing language as part of culture; or it may be related to psychology, in describing language as a kind of human behavior. One branch of linguistics, phonetics, may even be considered a natural science, related to the physical science of acoustics and the biological sciences of anatomy and physiology. As an applied science, linguistics has found many applications in fields as far apart as language pedagogy, speech therapy, and computer programming. Finally, linguistics may be considered a formal science in its own right, related to mathematics and logic.

The interdisciplinary aspects of this study are reflected in the organization of the program which offers a core of general linguistics courses and draws upon linguistically related courses in other departments.

Graduates use the major in linguistics for a liberal arts base in language related fields. With advanced work, they enter teaching, language research, translation, and linguistic field work, as well as professional fields such as law or such applied fields as teaching English as a second language.

The Bachelor of Arts is for students with an exceptional interest in and aptitude for the study of the systems of human communication. The essential relationships between language and thought and language and culture; the structure of foreign languages as well as English; the historical study of language and formal techniques are theoretical foundations of linguistic analysis.

The M.A. in Linguistics includes the study of the systems of human communication, reinforced by undergraduate study in linguistics and allied areas, such as foreign languages, English language, anthropology, speech communication and related areas in psychology and philosophy.

The relationship between linguistics and other disciplines and the application of the techniques, findings and insights of that science to such activities as language teaching are treated in interdisciplinary courses and seminars.

Prize in Linguistics:

Once a year an Outstanding Graduate Project is chosen by the department for publication in the Seminar Paper Series.

BACHELOR OF ARTS IN LINGUISTICS

Language Requirement

Two progressive semesters of any two languages or four progressive semesters of any one language.

Lower-Division Requirements 6

Any two 200-level linguistics course (6)

Upper-Division Requirements 27

Linguistics 351 Introduction to Linguistic
Phonetics and Phonology (3)
Linguistics 406 Descriptive Linguistics (3)
Linguistics 412 Sociolinguistics (3)
Linguistics 430 Historical Linguistics (3)
Any 300- or 400-level linguistics course (3)

Four electives:

(1) two must be from linguistics upper-division courses other than those listed as required above; and (2) two may be in linguistics upper-division courses or

Child Development 312 Human Growth and Development (3)
English 303 The Structure of Modern English (3)
English 490 History of the English Language (3)
Foreign Languages, any upper division course (3)
Philosophy 368 First Course in Symbolic Logic (3)
Physics 305 Acoustics (4)
Psychology 415 Cognitive Processes (3)

Students must consult with an adviser in linguistics before establishing their individual programs of study. Other courses in the university may be taken as an elective with the permission of the adviser.

MINOR IN LINGUISTICS

The minor in linguistics provides a solid introduction to the scientific study of language for students in a related major field. Students are required to take: Linguistics 106, Linguistics 351 and Linguistics 406. In addition, 12 units in elective courses selected with the approval of the Undergraduate Adviser are required. It is thus possible to tailor the minor to individual needs in rounding out a course of study in the student's major area of specialization. For more information contact the department office.

LABORATORY OF PHONETIC RESEARCH

See Research Organizations and Services and Special Study Centers.

MASTER OF ARTS IN LINGUISTICS

Admission to Graduate Standing: Conditionally Classified

An applicant for this program must meet the following requirements: a baccalaureate from an accredited institution and a grade-point average of at least 3.0 in the last 60 semester units attempted (see section of this catalog on admission of graduates for complete statement and procedures).

Graduate Standing: Classified

A student who meets the requirements for conditionally classified graduate standing, as well as the following requirements, may be granted classified standing upon the development of an approved study plan: a major in linguistics consisting of 24 upper-division semester credit hours, or equivalent, in the field, with grades testifying to above-average scholarship. Those having degrees with other related majors may be admitted if they have completed the following courses or their equivalents. These prerequisites may be fulfilled concurrently with graduate course work in the program.

Linguistics 351 Introduction to Linguistic
Phonetics and Phonology (3)
Linguistics 406 Descriptive Linguistics (3)
Linguistics 412 Sociolinguistics (3)
Linguistics 430 Historical Linguistics (3)

Knowledge of one foreign language is required (equivalent of FL 317 course). Students without course work in a foreign language may demonstrate proficiency by a score of average or better on the MLA-ETS Proficiency Examination for Advanced Students. Work toward fulfillment of this requirement may be taken concurrently with graduate work in linguistics.

Modifications of certain prerequisite requirements may be permitted in exceptional circumstances.

Study Plan Course Requirements

Units

Course work in descriptive and historical linguistics. 13

- Linguistics 501 Research Methods and Bibliography (1)
- Linguistics 505 Phonological Analysis (3)
- Linguistics 507 Grammatical Analysis (3)
- Linguistics 508 Theories of Syntax (3)
- Linguistics 530 Historical Linguistics (3)

Course work selected from any one of the following six areas of subspecialization, including other courses in the university with the approval of the adviser 9

Applied Linguistics

- English 303 Structure of Modern English (3)
- FL Ed 468 TESOL Contrastive Analysis (3)
- French 466 Intro to French Linguistics (3)
- French 599 Independent Graduate Research (1-3)
- German 466 Intro to German Linguistics (3)
- German 599 Independent Graduate Research (1-3)
- Linguistics 305 English Language in America (3)
- Linguistics 403 Speech and Language Development (3)
- Linguistics 416 Anthropological Linguistics (3)
- Linguistics 443A or B Principles of Teaching English to Speakers of Other Languages (3)
- Linguistics 580 Special Topics in Linguistics (3)
- Linguistics 596 Internship in Applied Linguistics (3)
- Linguistics 599 Independent Graduate Research (1-3)
- Spanish 466 Introduction to Spanish Linguistics (3)
- Spanish 467 Dialectology: Current Trends in Modern Spanish (3)
- Spanish 468 Spanish-English Contrastive Analysis (3)
- Spanish 599 Independent Graduate Research (1-3)

Anthropological Linguistics

- Anthropology 599 Independent Graduate Research (1-3)
- FL Ed 468 TESOL Contrastive Analysis (3)
- Linguistics 416 Anthropological Linguistics (3)
- Linguistics 580 Special Topics in Linguistics (3)
- Linguistics 592 Field Methods (3)
- Linguistics 599 Independent Graduate Research (1-3)

Analysis of Specific Language Structures

- FL Ed 468 TESOL Contrastive Analysis (3)
- French 466 Intro to French Linguistics (3)
- German 466 Introduction to German Linguistics (3)
- Spanish 466 Introduction to Spanish Linguistics (3)
- French 500 Graduate Seminar: Advanced Structure and Style (3)
- German 500 Graduate Seminar: Advanced Structure and Style (3)

- Spanish 500 Graduate Seminar: Advanced Structure and Style (3)
- German 530 Historical Linguistics (3)
- Spanish 530 Historical Linguistics (3)
- English 580 Special Topics in Linguistics (3)
- English 599 Independent Graduate Research (1-3)
- Spanish 599 Independent Graduate Research (1-3)
- French 599 Independent Graduate Research (1-3)
- German 599 Independent Graduate Research (1-3)
- Linguistics 580 Topics in Linguistics (3)
- Linguistics 592 Field Methods (3)
- Linguistics 596 Internship in Applied Linguistics (3)
- Linguistics 599 Independent Graduate Research (1-3)

Experimental Phonetics

- Linguistics 402 Advanced Phonetics (3)
- Linguistics 599 Independent Graduate Research (1-3)
- Physics 305 Acoustics (4)
- Speech Comm 599 Independent Graduate Research (1-3)

Communication and Semantics

- Anthropology 599 Independent Graduate Research (1-3)
- Linguistics 375 Introduction to the Philosophy of Language (3)
- Linguistics 416 Anthropological Linguistics (3)
- Linguistics 417 Psycholinguistics (3)
- Linguistics 436 Changing Words: History, Semantics and Translation (3)
- Linguistics 515 Graduate Seminar: Psycholinguistics (3)
- Linguistics 580 Topics in Linguistics (3)
- Linguistics 599 Independent Graduate Research (1-3)
- Speech Comm 599 Independent Graduate Research (1-3)

Disorders of Communication

- Linguistics 369 Language, Sex Roles, and the Brain (3)
- Linguistics 403 Speech/Language Development (3)
- Linguistics 417 Psycholinguistics (3)
- Linguistics 515 Graduate Seminar: Psycholinguistics (3)
- Linguistics 580 Topics in Linguistics (3)
- Linguistics 599 Independent Graduate Research (1-3)
- Speech Comm 441 Dysarticulation and Stuttering (3)
- Speech Comm 443 Voice Disorders and Cleft Palate (3)
- Speech Comm 463 Audiology (3)
- Speech Comm 599 Independent Graduate Research (1-3)
- Course work in linguistics or a related field . 6
- Linguistics 597 Project 2

Total 30

A minimum of 15 units in 500-level courses is required. Also, satisfactory completion of written and oral comprehensive examinations will be required at the conclusion of the program.

The examinations may be repeated only once. Reading lists and specifications for project are available in department office.

For further information, consult the graduate adviser of the Department of Linguistics.

Linguistics Courses

105A English as a Second Language (4)
(Same as Foreign Language Education 105A)

105B English as a Second Language (4)
(Same as Foreign Language Education 105B)

106 Language and Linguistics (3)
The nature of language, its origin and development; language in culture, the structure of language and its systems of writing and transcription, and its application to other areas of humanistic and scientific knowledge.

108 Linguistics and Minority Dialects (3)
The sounds, meanings and vocabulary of Afro-American, Caribbean, and other English dialects and their historical origin.

230 Introduction to Word Origins and Semantics (3)
Recommended as Prerequisite to Linguistics 430. An introduction to the role of word and sentence meaning as analyzed by contemporary linguistics theories. Major concepts, such as semantic fields, sense relationships, historical change of meaning and etymology.

251 Animal Language and Communication (3)
Animal linguistic behavior in comparison with human speech and its derivatives, and an exploration of experiments concerned with dolphins, chimps and other species.

254 Introduction to Paralanguage and Kinesics: Body Language (3)
The physical actions, gestures and changes in the physiology that occur together with language and paralanguage in human communication; substitutions for language and modifications of it in varying cultures.

300 Language and Culture (3)
(Same as Anthropology 300)

301 Sanskrit (4)
An introduction into the *devanagari* script as well as the phonology, morphology and syntax of the Sanskrit language. A reading knowledge of Sanskrit will be the main goal of the course. (Same as Religious Studies 301)

305 The English Language in America (3)
(Same as English 305)

351 Introduction to Linguistic Phonetics & Phonology (3)
The nature and structure of sound systems in language; a thorough investigation of the International Phonetic Alphabet as applied to many different languages including English; analytic methods and techniques.

354 Linguistics and Literature (3)
Prerequisite: a course in linguistics or English linguistics. Language as the medium of literature; the new stylistics, including theories of word choice, prosody, prose style, structure, statistical analysis, metaphor. Application to various literary forms. (Same as English 354)

369 Language, Sex Roles, and the Brain (3)
Examines how gender socialization is reflected in the structure and use of language and whether gender differences in language are biologically based or a consequence of sex roles.

375 Introduction to Philosophy of Language (3)
(Same as Philosophy 375)

402 Advanced Phonetics (3)
(Same as Speech Communication 402)

403 Speech/Language Development (3)
(Same as Speech Communication 403)

406 Descriptive Linguistics (3)
A study of the sounds (phonology), forms and meanings (morphology), and syntax of languages. Examples and problem solving in various languages will be emphasized. (Same as Anthropology 406)

412 Sociolinguistics (3)
Prerequisite: Linguistics 106 or equivalent. Social dialects in relation to the surrounding communities. Social stratification, acculturation, language maintenance, standardization, language planning and language change.

416 Anthropological Linguistics (3)
(Same as Anthropology 416)

417 Psycholinguistics (3)
(Same as Psychology 417)

430 Historical Linguistics (3)
Prerequisite: Linguistics 406, its equivalent, or consent of instructor. The comparative method in diachronic linguistic methodology and theory, graphemics, glottochronology, language families, dialect geography and internal reconstruction. Fulfills the course requirement of the university upper division baccalaureate writing requirement for linguistics majors.

436 Changing Words: History, Semantics and Translation (3)
Prerequisites: Linguistics 430, English 490 or consent of instructor. Study of etymology, related problems of lexicography and translation. Recent developments in theory of semantic change as related to cultural shifts. Emphasis on words, collocations, idioms. (Same as English 436)

443A Principles of Teaching English to Speakers of Other Languages (3)
(Same as FL Ed 443A)

443B Principles of Teaching English to Speakers of Other Languages (3)
(Same as FL Ed 443B)

492 Linguistic Fieldwork (3)
Prerequisites: Linguistics 106; 351 or 406. Methodology and practice of linguistic analysis and language description as practiced in field. Central is data collection and processing of a non-Indo-European linguistic structure using native informants. May be repeated for credit.

499 Independent Study (1-3)

Supervised projects with consent of department chair. Topic varies with the student. May be repeated for credit.

501 Research Methods and Bibliography (1)

Prerequisites: graduate standing and Linguistics 406, or equivalent. Principal books, periodicals and collections in general linguistics, specific languages and related fields; techniques of preparing research papers and field reports in linguistics. To be taken concurrently with Linguistics 597.

505 Phonological Analysis (3)

Prerequisites: Linguistics 351 and 406 or consent of instructor. Phonological systems that occur in languages; emphasis on terminology used to describe changes in the system and processes effecting it; problem solving of selected language data. (Same as Anthropology 505)

507 Grammatical Analysis (3)

Prerequisite: Linguistics 406 or consent of instructor. Word formation in a variety of languages with emphasis on the terminology used to describe morphological representation on various levels; problem solving of selected language data. (Same as Anthropology 507)

508 Theories of Syntax (3)

Prerequisite: Linguistics 507 or consent of instructor. Contemporary theories of grammar, such as transformational-generative, with emphasis on theoretical problems in the analysis of language structure. (Same as Anthropology 508)

515 Graduate Seminar: Psycholinguistics (3)

Prerequisites: Linguistics 406 and 417 or equivalents. The behavioral, conceptual, motivational and social aspects of language; recent developments in information theory, behavioral theory and linguistic theory as applied to human communication. (Same as Psychology 515)

530 Graduate Seminar: Historical Linguistics (3)

Prerequisite: Linguistics 430, its equivalent or consent of instructor. The history of language, including principles and techniques for the historical study and classification of individual languages and language families, writing systems, lexicostatistical methods and linguistic geography.

580 Special Topics in Linguistics (3)

Seminar devoted to a topic in contemporary linguistics: linguistic typology; a major language family; areal linguistics; language and the computer. Topic will be circulated in advance of registration. May be repeated for credit. (Same as English 580)

592 Field Methods in Linguistics (3)

Prerequisite: consent of instructor. Methods of analysis and description of language structures. Data elicited from informants will be analyzed and described. (Same as Anthropology 592) May be repeated for credit.

596 Internship in Applied Linguistics (3)

Prerequisite: Linguistics 443 or consent of instructor. The practical application of linguistic theory to second language learning, particularly at the community college level. Individual supervision by the faculty and cooperating individuals. Interns meet with the instructor by arrangement. May be repeated for credit.

597 Project (2)

Preparation and completion of an approved project. To be taken concurrently with Linguistics 501.

599 Independent Graduate Research (1-3)

Prerequisites: graduate standing and consent of department chair. May be repeated for credit.

Pacific Rim Studies Program

Program Office: McCarthy Hall 103

Program Offered

Minor in Pacific Rim Studies

Faculty

James L. Dietz (Economics/Latin American Studies), Joan Greenwood (English), Gamin Gunawardane (Management), Ron Helin (Geography), Craig Ihara (Philosophy), Samuel Kupper (History), Irene Lange (Marketing), Keiji Matsumoto (Foreign Languages), Michael Onorato (History), James Santucci (Linguistics/Religious Studies), Preston Stedman (Music), Richard Wiseman (Speech Communication), Kinji Yada (History)

INTRODUCTION

The minor in Pacific Rim Studies is designed to give interested students the opportunity to gain an understanding of the human community and cultural diversity represented by the Pacific Rim.

The minor makes available a structured selection of courses offered by the program which can complement other majors by providing core courses and electives chosen in consultation with an adviser.

MINOR IN PACIFIC RIM STUDIES

The minor consists of 21 units: 6 units chosen from the listed core courses and 15 units of electives chosen in consultation with an advisor as outlined below.

Core Courses (6 units)

Anthro 340 Peoples of Asia (3)
or Anthro 347 Peoples of the Pacific (3)
Geography 346 Pacific World (3)
or Geography 340 Asia (3)

Electives (15 units)

One course each from three of the four following categories, plus 6 units of advisor-approved electives:

Language, Culture, Geography, and Human Behavior:

Anthro 340 Peoples of Asia (3)*
Anthro 347 Peoples of the Pacific (3)*
Counseling 494 Cross Cultural Counseling (3)
Chinese 100 Introduction to Chinese (3)
Chinese 101 Fundamental Chinese A (5)
Chinese 102 Fundamental Chinese B (5)
Chinese 203 Intermediate Chinese (5)
Japanese 101 Fundamental Japanese A (5)
Japanese 102 Fundamental Japanese B (5)
Japanese 203 Intermediate Japanese A (5)
Japanese 204 Intermediate Japanese B (5)

Japanese 310 Japanese for Business (3)
Japanese 311 Japanese for International Business (3)
Geography 340 Asia (3)*
Geography 346 Pacific World (3)*
Phys Ed 151 Aikido (1)
Phys Ed 152 Karate (1)
Speech Comm 320 Intercultural Communication (3)

*One of these is applicable as an elective if *not* chosen as a core course.

History and Politics:

History 360 Modern Asia: Nationalism & Rev. Change (3)
History 380 Canada, 1534-1967 (3)
History 462A History of China (3)
History 462B History of China (3)
History 462C China Since 1949 (3)
History 463A History of Japan (3)
History 463B History of Japan (3)
History 464A History of Southeast Asia 1850-1945 (3)
History 464B History of Cont. SE Asia (3)
Poli Sci 451 Problems in International Politics (3)
Poli Sci 452 Foreign Policy of Selected Country or Group of Countries (3)
Poli Sci 455 Comparative Analysis of Foreign Policies (3)
Poli Sci 457 Politics of International Economics (3)

Arts and Humanities:

(including Art, Literature, Philosophy and Religious Studies)

Comp Lit 257 Writing Haiku (1,2,3)
Comp Lit 424 Chinese Literature (3)
Comp Lit 426 Japanese Literature (3)
Comp Lit 427 Modern Japanese Fiction (3)
Music 352 Symphonic Music in Western & Eastern Cultures (3)
Philosophy 350 Oriental Philosophy (3)
Religious Studies 270 Intro to Oriental Religions (3)

International Business and Economics:

Economics 332 Economic Problems of Asia (3)
Economics 333 Economic Development, Analysis & Case Studies (3)
Economics 335 The International Economy (3)
Economics 411 International Trade (3)
Finance 370 International Bus. Finance (3)
Marketing 458 International Marketing Policies (3)

Department of Philosophy

Department Chair: Gloria Rock

Department Office: Education Classroom 475

Programs Offered

Bachelor of Arts in Philosophy

Minor in Philosophy

Faculty

John Cronquist, David Depew, Albert Flores,
Craig Ihara, Merrill Ring, J. Michael Russell,
Betty Safford, Richard Smith, Frank Verges

Advisers

For advisement about the major or the minor in Philosophy, please contact the Chair of the Department.

INTRODUCTION

Philosophy began when people first questioned the accounts poets and priests had handed down about the structure of the world and the meaning of human life. Since then philosophers have helped create and explore virtually every aspect of our cultural life, including science, religion, art and politics. To study philosophy, therefore, is to engage in a classic form of liberal education in which powers of reasoning and conceptual analysis are explicitly developed. The study of philosophy includes (1) the practice of analytic and problem-solving skills; (2) the investigation of conceptual problems encountered in the course of reflecting about experience; (3) the assessment of assumptions underlying other sciences and arts; and (4) the exploration of intellectual and cultural history from a broad perspective. Philosophy is not a "high unit" major. It is possible for many students to obtain the benefits of a philosophically based liberal education while also majoring in another, more directly career oriented field. The philosophy department also encourages minors, which can be tailored to the student's individual interests or other fields of study. Majoring or minoring in philosophy is an excellent way of preparing for law school and other graduate careers that involve facility in reasoning, analysis and information processing.

Prizes in Philosophy

The Paul C. Hayner Memorial Award, to the outstanding graduating senior in philosophy; the William H. Alamshah Memorial Prize, for the best undergraduate philosophy essay submitted.

BACHELOR OF ARTS IN PHILOSOPHY

A minimum of 39 units in philosophy is required.

1. Philosophy 315 Philosophical Argument and Writing (3)
2. Required courses in the history of philosophy before 1900: (12 units)
 - Philosophy 290 History of Philosophy: Greek Philosophy (3)
 - Philosophy 291 History of Philosophy: Medieval Philosophy (3)
 - Philosophy 300 History of Philosophy: Rationalism and Empiricism (3)
 - Philosophy 301 History of Philosophy: Kant and the 19th Century (3)
3. History of 20th Century Philosophy Requirement: (3 units). One of the following courses: Philosophy 323, 378, 380, 382, 490.
4. *Area requirements*: Nine units (three courses) to include courses from at least two of the following areas:
 - Area I—Ethics, Aesthetics, Value Theory: Philosophy 310, 311, 345, 365, 455.
 - Area II—Metaphysics and Epistemology: Philosophy 420, 425, 430, 440, 470.
 - Area III—Logic and Language: Philosophy 368, 369, 375, 460.
 - Area IV—Philosophy of the Natural and Social Sciences: Philosophy 303, 341, 384, 385, 386.
5. Independent Study and Seminar Requirements: Six units to be met either by taking one seminar not used to fulfill other requirements and Philosophy 499, or by taking two seminars not used to fulfill other requirements. Seminars: Philosophy 447, 455, 460, 470, 480, 490.
6. Electives: 6 units of philosophy courses, upper- or lower-division, which have not been used to meet requirements 2-5, above.

MINOR IN PHILOSOPHY

Students in other disciplines often find that a background in philosophy enriches their university experience and enhances work done in other fields in preparation for specific careers. The minor in philosophy requires 21 units in philosophy, at least 12 of which must be upper division. Courses taken in fulfillment of general education requirements may be counted toward the minor. The Department of Philosophy offers two ways of pursuing the minor:

A: Among the 21 units, at least six units from among the following courses: Philosophy 115A, 115B, 290, 291, 300, 301, 378; and either a senior seminar or 3 units of Philosophy 499.

B: Among the 21 units, at least 15 units to be chosen from among philosophy courses correlative to the student's major or intended postbaccalaureate field, as approved by the philosophy adviser.

RECOMMENDED COURSE WORK FOR PHILOSOPHY MAJORS

A program in philosophy profits greatly from the study of psychology, the natural and social sci-

ences, and literature. Students are advised to supplement their studies in philosophy with course work offered in these fields and in fields closely related to their philosophical interests.

Students who are planning to attend graduate school in philosophy are urged to acquire proficiency in a foreign language, and to include in their programs, in addition to the required courses, as many as possible of the following:

Philosophy 303	Introduction to Philosophy of Science
Philosophy 310	Ethics
Philosophy 368	First Course in Symbolic Logic
Philosophy 369	Second Course in Symbolic Logic
Philosophy 375	Philosophy of Language
Philosophy 378	Contemporary Philosophy
Philosophy 380	Analytic Philosophy
Philosophy 384	Philosophy of the Physical Science
Philosophy 420	Metaphysics
Philosophy 430	Epistemology
Philosophy 440	Philosophy of Mind
Philosophy 455	Seminar in Values

Transfer Credit

Work done in philosophy at other institutions may be counted toward the major, subject to the rules of the university and the following departmental rules: (1) only senior seminars can fulfill the seminar requirement; (2) only upper-division work can fulfill upper-division requirements; (3) *in no case can more than six units of lower-division work taken at another institution count toward the major requirement of 39 units*. Six units of philosophy may be counted toward the minor.

Philosophy Courses

For more detailed course descriptions, consult the course guide which is available each semester at registration time in the Philosophy Department office.

100 Introduction to Philosophy (3)

The nature, methods and some of the main problems of philosophy. Primarily for freshmen and sophomores. Not a prerequisite for advanced courses.

110 Comparative Study of the World's Great Religions (3)

A philosophical study of some of the world's important religions: Christianity, Judaism, Islam, Buddhism, Hinduism, et cetera. (Same as Religious Studies 110)

115A The Western Tradition: Philosophy (3)

Major developments in the philosophical heritage of Western civilization to the 16th century.

115B The Western Tradition: Philosophy (3)

Major developments in Western civilization's philosophical heritage from 16th/17th centuries to the present.

120 Philosophy of the Person N(3)

A philosophical examination of personhood and human nature; the meaning of life, death, love, tragedy, and success; with particular focus on self-consciousness, social and bodi-

- ly alienation, freedom, work, and leisure; and the role of education, art, and morality for the good life.
- 00 Argument and Reasoning (3)**
Development of non-mathematical critical reasoning skills, including recognition of arguments, argument evaluation and construction of arguments.
- 10 Logic (3)**
The logical structure of language and correct reasoning: deduction, induction, scientific reasoning, informal fallacies.
- 90 History of Philosophy: Greek Philosophy (3)**
The origins of Western philosophy, and its development through Socrates, Plato and Aristotle.
- 91 History of Philosophy: Medieval Philosophy (3)**
Scholastic philosophy and its precursors in ancient thought.
- 00 History of Philosophy: Rationalism and Empiricism (3)**
The rationalism of Descartes, Spinoza and Leibniz, and the empiricism of Locke, Berkeley and Hume.
- 01 History of Philosophy: Kant and the 19th Century (3)**
Philosophy 300 (may be taken concurrently) or consent of instructor. Brief review of rationalism and empiricism as a background to Kant. A study of the revolutionary aspects of Kant's critical philosophy. An exploration of subsequent trends in nineteenth century philosophy, emphasizing such figures as Hegel, Schopenhauer, Marx, Mill, Kierkegaard and Nietzsche.
- 02 Introduction to Women's Studies (3)**
Prerequisite: either Philosophy 100, Biological Science 101, Psychology 100, Sociology 100, or consent of instructor. Interdisciplinary introduction to feminist theories and women's studies. Examination of historical and contemporary women's issues and research in relevant disciplines.
- 03 Introduction to the Philosophy of Science (3)**
Prerequisite: general education physical or biological science requirement. Logical and methodological features of scientific inquiry; nature of theories and interpretation of theoretical terms; scientific progress; impact of science on society and of society on science.
- 04 Methods of Inquiry (3)**
An examination of problems and issues, especially philosophical ones, which arise in interdisciplinary inquiry.
- 10 Ethics (3)**
Problems of human conduct and moral evaluation: standards for moral assessment of conduct and persons; morality and its relation to mores, social demands and personal commitments.
- 11 Aesthetics: Philosophy of Art and Beauty (3)**
The conditions and aims of art and of aesthetic experience.
- 12 Business and Professional Ethics (3)**
Prerequisite: upper division standing. Explores the nature and limits of the moral rights and responsibilities of business and the professions (including law, medicine, science, engineering, journalism, management and teaching).
- 14 Medical Ethics (3)**
Prerequisite: upper division standing. An examination of ethical issues raised by recent technical developments in medicine, and of the moral rights and responsibilities of patients and health-care professionals.
- 15 Philosophical Argument and Writing (3)**
Prerequisite: three units of philosophy. Philosophical concepts, distinctions and methods are used to teach philosophical and argumentative writing which is clear, critical, expressive and precise. This course is designed to satisfy the classroom portion of the upper-division writing requirement for philosophy majors.
- 323 Existentialism (3)**
Introduction to existentialist perspectives on freedom, meaning, responsibility, authenticity and self-deception. The course typically includes discussion of Kierkegaard, Nietzsche, Heidegger and Sartre.
- 324 Existential Group (3)**
Prerequisite: consent of the instructor. An investigation of how themes in the writings of existentialist philosophers pertain to the life styles, actions, and feelings of the class participants.
- 341 Assumptions of Psychotherapy (3)**
Prerequisite: completion of Implications and Explorations in Social Sciences section of the general education program or consent of instructor. Philosophical concepts and assumptions pertinent to the theory of psychotherapy, such as the Cartesian, the mechanistic and the deterministic assumptions of Freud.
- 343 Philosophy of Feminism (3)**
Prerequisite: three units of philosophy or 3 units of women's studies. A critical examination of philosophical issues connected with "second-wave" U.S. feminism. Alternative feminist theories, goals and reconstructions of traditional areas of philosophy.
- 345 Political Philosophy (3)**
Philosophical problems concerning the nature, purposes, justification and limits of government and states; political authority, rights, and duties. (Not the same as Political Science 340.)
- 347 Selected Problems in Philosophy (1-3)**
Examination and clarification of some philosophical topic or group of related topics not adequately covered in other listed philosophy courses. May be repeated with different content for additional credit.
- 348 Philosophy of Religion (3)**
The role of philosophy in shaping theological doctrine, in critically evaluating religious experience, in arguing for or against the existence of God, and in considering the problem of evil.
- 350 Oriental Philosophy (3)**
Prerequisite: Completion of cultural diversity section of the general education program. Asian philosophies such as Taoism, Confucianism and Buddhism (especially Zen): World views, conceptions of human nature and the good life for man. Applications to martial and non-martial arts. Comparisons with Western philosophies, religions and values.
- 355 Legal Philosophy (3)**
A philosophical examination of the concept of law and the principles and institutions concerned with the administration of law. Topics may include: the nature and justification of law; judicial decision-making; justice; liberty; legal responsibility; punishment.
- 365 Social Philosophy (3)**
Theories about the nature of various social, political and legal institutions, and arguments about what these institutions ought to be.
- 368 First Course in Symbolic Logic (3)**
Prerequisite: Entry Level Mathematics Examination; upper

division standing. The recognition and construction of correct deductions in the sentential logic and the first-order predicate calculus. (Same as Math 368)

369 Second Course in Symbolic Logic (3)

Prerequisite: Philosophy 368 or Mathematics 368. Continuation of Philosophy 368. Recognition and construction of correct deductions in the full first-order predicate calculus with identity and the calculus of descriptions. Alternative Systems. Elementary results in Metamathematics. (Same as Math 369)

373 Philosophy and Literature (3)

Philosophical themes in literature and conceptual issues about literature.

375 Introduction to the Philosophy of Language (3)

Prerequisites: Six units of philosophy or six units of linguistics or three units of each. A study of philosophical issues about language including topics such as meaning, reference, predication, and truth. (Same as Linguistics 375)

378 Contemporary Philosophy (3)

Prerequisite: six units of philosophy or consent of instructor. Main trends in 20th-century philosophy such as pragmatism, logical empiricism, ordinary language philosophy, phenomenology, existentialism, hermeneutics; recent developments.

380 Analytic Philosophy (3)

Prerequisite: six units in philosophy or consent of instructor. Investigation of the rise and development of the analytic movement in 20th century philosophy. Works of such philosophers as Moore, Russell, Wittgenstein, Carnap, Quine, Ryle, Austin and Strawson will be studied.

382 Marx and Marxism (3)

Marx and his followers in philosophical perspective. Theories of human nature, society and intellectual activity; conceptual tools for the analysis of social phenomena; sources; and followers, both critical and dogmatic.

384 Philosophy of the Physical Sciences (3)

Prerequisite: Completion of disciplinary core section of general education program or consent of instructor. Space, time and relativity; quantum mechanics; causality and real existence; laws, theories, models, topics in history of science. (Same as Physics 384)

385 Philosophy of the Social Sciences (3)

Prerequisite: Completion of Implications and Explorations in Social Sciences section of the general education program or consent of instructor. Methodological problems about the social sciences: objectivity and value; emergence; explanation; functionalism and reductionism. (Same as Social Science 385).

386 Philosophy of Biology (3)

Prerequisite: completion of general education requirements in Biological Science. Conceptual foundations of biological science and especially of evolutionary theory. Applicability of such concepts as natural law, theory reduction, emergence and teleology to the investigation of living things from the molecular to the ecological level.

399 Directed Study (1-3)

Prerequisite: approval of department. Supervised individual study as an elective. May be repeated for credit with different content. No more than three units may be taken with any one adviser in any one semester.

400 Ethical & Professional Issues in Human Services (3)
(Same as Human Services 400)

420 Metaphysics (3)

Prerequisite: six units in philosophy or consent of instructor. Such philosophical problems as freedom and determinism, mind and body, time and becoming, causation, deity, substratum, personal identity.

425 Introduction to Phenomenology (3)

Prerequisite: six units in philosophy or consent of instructor. The historical background and basic viewpoints which have provided a framework for philosophical research and study in the writings of Husserl, Heidegger, Sartre and Merleau-Ponty.

430 Epistemology (3)

Prerequisite: six units in philosophy or consent of instructor. The nature of knowledge, belief, certainty, truth, perception, and the *a priori*; examinations of skepticism, traditional responses to skepticism, and the foundations of knowledge.

440 Philosophy of Mind (3)

Prerequisite: six units in philosophy or consent of instructor. The concept of mind, and such related issues as the mind-body relation, behavior, consciousness, voluntary action, weakness of will, and our knowledge of other minds.

447 Seminar in Selected Problems (3)

Prerequisite: six units in philosophy or consent of instructor. Intensive study of one philosophical concern, such as an individual philosopher or topic. May be repeated with different content for additional credit.

455 Seminar in Values (3)

Prerequisite: Philosophy 310 or 311, or consent of instructor. Valuation or some important form of value: ethical, aesthetic, political. May be repeated with different content for additional credit.

460 Seminar in Logic and Language (3)

Prerequisite: appropriate course from among Philosophy 368, 369, 375. Topics in advanced logic, theory of meaning and formal semantics, foundations of logic and mathematics. May be repeated with different content for additional credit.

470 Seminar in Metaphysics and Epistemology (3)

Prerequisite: Philosophy 420 or 430 or 440, or consent of instructor. Topics in metaphysics and epistemology such as reality, substance, mind, action, cause, knowledge, truth. May be repeated with different content for additional credit.

480 Seminar in the History of Philosophy (3)

Prerequisite: an appropriate course from among Philosophy 290, 291, 300, 301, or consent of instructor. Some important work, figure, school or problem in the history of philosophy before 1900. May be repeated with different content for additional credit.

490 Seminar in Contemporary Philosophy (3)

Prerequisite: appropriate course work or consent of instructor. Issues raised by such 20th-century philosophers as Russell, Moore, Wittgenstein, Austin, Quine, Husserl, Heidegger, Sartre, Merleau-Ponty or Foucault. May be repeated with different content for additional credit.

499 Independent Study (1-3)

Prerequisite: approval of department. To develop competency in research. May be repeated for credit. No more than three units may be taken with any one adviser in any one semester.

Department of Political Science

Department Chair: Alan Saltzstein

Department Office: Education Classroom 424

Programs Offered

Bachelor of Arts in Political Science

Concentration in Public Administration

Minor in International Politics

Minor in Political Science

Minor in Public Administration

Master of Arts in Political Science

Master of Public Administration

Faculty

Norman Baldwin, Sidney Baldwin, Virginia Bott, Keith Boyum, Michael Brown, Vincent Buck, Bert Buzan, Anne Feraru, Julian Foster, Phillip Gianos, Harvey Grody, Gary Guertner, Karl Kahrs, Alana Northrop, Ivan Richardson, Alan Saltzstein, Vera Simone, J. Owens Smith, Raphael Sonenshein, Barbara Stone, Sandra Sutphen, Bruce Wallin, Bruce Wright, Jon Yinger.

Advisers

The department emphasizes proper advisement, and all majors are strongly urged to talk with either the undergraduate, the prelaw or the public administration adviser as soon as possible after entering the program. The adviser helps with study plans, and gives information about subsequent career possibilities, including law and other graduate schools, post-baccalaureate fellowships and scholarships, and job possibilities in local government.

INTRODUCTION

Political science is the study of people's behavior as it relates to power and public organizations. The discipline is normally divided into six subfields:

Political philosophy, which deals with normative questions about how power should be used and distributed, rights and obligations, the nature of justice and the ideal state.

American politics, which is concerned with campaigns and elections, parties, elected executives, legislative processes, and issues of public policy.

Public administration, the role played by the public employees in policy making, planning personnel management, taxation and finance, and in responding to the needs and problems of communities and the nation.

Public law, which involves the judicial process, civil rights and liberties, and the significance of such terms as "equal opportunity" and "due process" in the United States.

Comparative government, which raises the same questions of politics, administration and law about other countries, and moves towards conclusions based on comparisons between them.

International politics, which is concerned with relations between the states and other international actors such as multinational corporations and the United Nations and with the underlying realities of power, based on resources, wealth, military preparedness and national security.

A major in political science prepares students for law school, government employment on the local, state and national levels, foreign service, teaching, business, journalism, or leadership in civic and political activities.

The department offers a concentration in public administration for those who seek careers in public service. The concentration describes the environment in which the profession exists and the concepts and goals which underlie such functions as budgeting, personnel work, policy analysis and management. Experience is gained through the administrative internship.

For prelaw students, the department provides a series of law-related courses numbered in the 370 and 470 series (see course descriptions). There is a prelaw adviser and active Prewlaw Society which enables students to make close and direct contact with the work of attorneys, judges, etc. The department is closely tied to the College Legal Clinic, which provides free legal advice for students and others who cannot afford the usual costs.

Internships

The department offers a variety of internships. Each one involves students in working in an agency or political organization, and in meeting in an on-campus seminar to discuss and analyze their experiences. Internship courses are numbered 298, 491, 492, 497 and 498 (see course descriptions).

BACHELOR OF ARTS IN POLITICAL SCIENCE

Basic Requirements

The major consists of 36 units of political science, of which at least 30 units must be in the upper division, plus 12 upper-division units in related disciplines, such as American studies, anthropology, economics, geography, history, philosophy, psychology, sociology and statistics. Work in related fields must be approved in writing by one of the department's undergraduate advisers. The 48 units required for majors are in addition to those meeting the general education requirement.

Breadth Requirements

Majors, with the exception of those choosing the public administration concentration, are required to take Political Science 340 (Political Philosophy) and

an introductory course (as listed below) in four of the five remaining subfields of political science.

- Poli Sci 310 American Political Behavior (3)
or 315 American Political Process (3)
- Poli Sci 320 Politics, Policy and Admin (3)
- Poli Sci 330 Comparative Political Analysis (3)
- Poli Sci 350 World Politics (3)
or Poli Sci 352 American Foreign Policy (3)
- Poli Sci 375 Public Law (3)

Those choosing the public administration concentration described below take Political Science 320 and one other course listed above.

Research Methods Requirement

All majors must acquire a knowledge of research methods and approaches *either* by taking Poli Sci 407, Quantitative Methods in Poli Sci, *or* by taking one of the research proseminars: Poli Sci 311, 321, 341, 351 or 376. Those concentrating in public administration must take either 407 or 321.

CONCENTRATION IN PUBLIC ADMINISTRATION

In addition to fulfilling the breadth, research methods and related disciplines required in the ways described above; those who wish to concentrate in public administration must take:

1. Nine units from among the following courses on administrative and management processes: Poli Sci 421, 422, 423, 424, 426, 429, 475 and 497.
2. Six units from among the following courses on policy and administrative analysis: Poli Sci 420, 427, 455, 456 and 482.
3. Nine units from courses in the general area of the American political process, as approved by the adviser.

A total of 36 units in public administration and political science is required.

Political Science Honors Program

The department honors program provides an enriched learning experience for a selected group of students and encourages closer interaction between these students and faculty members in specialized fields of interest. Eligibility requires senior standing, a major in political science, 3.0 overall grade point average and 3.25 grade point average in all political science course work, plus recommendation for admission to the program from a faculty member in the Department.

MINOR IN INTERNATIONAL POLITICS

The minor consists of 21 units, of which 15 must be in political science. At least six units must be taken from: Poli Sci 350, 352 or 457. The remaining units must be taken from: Poli Sci 350, 352 or 457, if not already taken to fulfill the six-unit requirement specified above, Communications 426, Economics 330, Economics 335, Geography 367, History 485, and Poli Sci 351, 430, 431, 451, 452, 455, 456, 461, 491. Students who wish to specialize in a specific geographical area are encouraged to investigate the possibility of taking related units in anthropology,

economics, foreign languages, geography, history and literature, etc.

MINOR IN POLITICAL SCIENCE

The minor is composed of 18 units in upper-division political science courses plus Poli Sci 100.

MINOR IN PUBLIC ADMINISTRATION

The minor is composed of 18 units. Students must take Poli Sci 320, 12 units selected from the courses on administrative and management processes (defined under the public administration concentration, above) and one additional upper-division political science course.

MASTER OF ARTS IN POLITICAL SCIENCE

The degree is designed both to enlarge and deepen the competence of political science students. It is especially planned for the professional improvement and advancement of high school and community college teachers, government employees, and military personnel. It also prepares students for entering a doctoral program in political science or for law school. The M.A. program provides training and preparation for journalists, special librarians, and research staffers and for all people active in civic affairs and political life.

Admission to Graduate Standing: Conditionally Classified

University requirements include a baccalaureate from an accredited institution and a grade-point average of at least 2.5 in the last 60 semester units attempted.

In addition to the university requirements, acceptance into the M.A. in political science program requires a grade-point average of 3.0 in the major field. If the major is not in one of the social sciences, the GPA requirement of 3.0 also applies to upper-division social science courses taken. If a student's GPA does not meet these criteria, the student may appeal to the department's graduate committee for a waiver.

Graduate Standing: Classified

A student admitted to conditionally classified status may apply for classified standing which requires development of an approved study plan prior to completion of nine units. (See general regulations under "Graduate Standing: Classified" and "Study Plan.")

Study Plan

Each candidate for a degree should, in consultation with the graduate adviser, arrange for the appointment of a graduate committee, composed of three faculty members, one of whom will serve as chair; this committee will approve the study plan, conduct the examination(s) and supervise the thesis if the student chooses that option.

As a requirement for admission to classified standing the student, in cooperation with the graduate program adviser, must develop a study plan of 30 units of course work:

1. 15 units of required seminar work in political science
- A. Scope and Theory of Political Science

Poli Sci 540 Seminar Readings in Political Philosophy (3)

Poli Sci 541 Seminar in Contemporary Political Theory (3)

B. American Politics/Public Affairs

Poli Sci 511 Seminar in American Politics (3)

Poli Sci 519 State and Local Government (3)

or Poli Sci 509 (3) Administrative Organization and Process (3)

or Poli Sci 525 Seminar in Metropolitan Area Government (3)

or Poli Sci 528 Seminar in Public Administration and Policy (3)

C. Cross-National Politics 530 Seminar in Cross-National Politics (3)

Students are required to take a minimum of one seminar each semester until completion of the entire sequence.

2. 15 units of elective course work in political science (adviser-approved 400 and/or 500-level classes). These will normally be classes in a student's chosen area of specialization. They may include, where appropriate, 597 Independent Graduate Research. (University policy limits this to six units) and either 597 Project (3 units) or 598 Thesis (3-6 units).

No more than nine units taken prior to classified standing may be applied to a student's study plan. No more than nine units taken at another institution may be transferred, and these must be approved by the adviser, committee and dean of graduate studies.

Research Skills

Each candidate must demonstrate one of the following:

1. Reading knowledge of a foreign language. Students must complete this requirement by passing an examination.
2. Proficiency in quantitative research skills, including data analysis and research design as demonstrated by successful completion of Poli Sci 407, Quantitative Methods in Political Science, or its equivalent.

Comprehensive Examinations

All students will successfully complete written and oral examinations in Scope and Theory of Political Science, American Politics/Public Affairs and Cross-National Politics. All three sections must be successfully completed or the entire examination must be retaken. The examination has a written and an oral component. A student who does not pass the written portion is ineligible to take the oral test. The examinations may be retaken only once after an initial failure.

For advisement and further information, consult the M.A. in Political Science adviser.

MASTER OF PUBLIC ADMINISTRATION

This professional degree is designed to disseminate the knowledge and skills needed for efficient and effective government. The program acquaints the stu-

dent with the theoretical and practical skills needed to improve the practice of governmental management. It also prepares one to cope with the ethical and moral dimensions of the contemporary policy maker. Career guidance, working experience and placement are important components of the program. It is designed to:

1. Prepare students who wish to enter the field of public administration;
2. Increase the professional competence of those already embarked in public administration careers;
3. Provide academic study for persons who wish to prepare themselves for second careers in public service;
4. Furnish academic study for those wishing to pursue doctoral work; and
5. Provide specialized training in areas such as financial administration, personnel administration, administrative research, planning and criminal justice.

The program is designed to aid the student in acquiring several skills. These include:

1. Written and oral communication for public administration;
2. Public administration research and analysis techniques;
3. Knowledge of organization processes and behavior;
4. An understanding of federal, state and local governmental and administrative systems and processes; and
5. Knowledge of administrative techniques and practices such as personnel testing, program budgeting and management by objectives.

Students may also develop knowledge of various specialized areas of employment such as criminal justice, human services administration, health administration and gerontology.

Admission to Graduate Standing: Conditionally Classified

One may become conditionally classified in the Master of Public Administration if the university requirements for admission are met. These requirements are: a baccalaureate degree from an accredited institution and a grade point average of at least 2.5 in the last 60 semester units attempted (see section of this catalog on admission of graduates for complete statement and procedures).

Graduate Standing: Classified

A student who meets the above requirements may become a classified student if the following conditions are met:

1. Completion of a minimum of 12 semester units of undergraduate course work in the social sciences, six semester units of which must have been upper-division level. At least one of the courses must have been in economics. These social science courses, to satisfy this requirement,

must have included such curriculum components as: social, political and legal environment; cultural, ethical and social values; levels and institutions of government; human behavior in organizations; concepts and practices of administration; and political processes of government. Upon recommendation of the public administration faculty, suitable practical experience may be substituted for a maximum of six units of the social science requirement.

2. Completion of a one-semester course in basic statistics;
3. Satisfying at least one of the following conditions:
 - A. A grade-point average of at least 3.25 in upper-division courses in the undergraduate major;
 - B. Scores on the Aptitude Test of the Graduate Record Examination in the upper quarter of those taking the examinations; or
 - C. Completion of nine semester units of adviser-approved course work in this program with a grade-point average of at least 3.3; and
4. Approval of a study plan through consultation with the M.P.A. coordinator.

Study Plan

The degree study plan must include a *minimum* of 36 semester units of adviser-approved course work which meets the following requirements:

1. Eighteen units of required core course work in public administration as follows:

Units

Poli Sci 521 Seminar in Public Administration Theory	3
Poli Sci 523 Administrative Research and Analysis	3
Poli Sci 526 Seminar in Administrative Behavior	3
Poli Sci 421 Public Finance Administration	3
Poli Sci 422 Public Personnel Administration	3
And one of the following:	
Poli Sci 519 State and Local Government	
Poli Sci 525 Seminar in Metropolitan Area Government	
Poli Sci 528 Seminar in Public Administration and Policy	3
Total	18

2. Complete minimum of 18 units at the 500 level.
3. No more than nine units from other institutions may be accepted for transfer credit.
4. Three units of credit in the public administration internship for students who do not have adequate public service experience.
5. Candidates for the M.P.A. degree must successfully pass a written comprehensive examination in public administration, but any candidate may, with the approval of the M.P.A. adviser, choose either the project (Poli Sci 597) or the thesis (Poli Sci 598) in lieu of the comprehensive examination. Both the project and the thesis earn three units of course work each and include a final oral defense.
6. Normally, no more than nine units of postgraduate

- course work taken prior to classified standing may be applied to the master's degree program.
7. A course in basic statistics must be taken during the first semester if not previously taken. This course cannot be applied toward the 36 units of course work.
 8. Student electives should be planned in accordance with their career objectives and must include at least two courses in one of these areas: public finance, public personnel, or planning.
 9. Poli Sci 509, Administrative Organization and Processes, is required of all students who have not completed a foundations of public administration course within the last three years.
 0. Candidates who enroll in 400-level courses will be required to do additional work beyond that required of undergraduates.

Political Science Courses

Poli Sci 100 or its equivalent is the prerequisite for all upper-division political science courses; 300-level courses beginning with 310 may require concurrent enrollment in a research proseminar. Prerequisite may be waived only with consent of instructor.

100 American Government (3)

People, their politics, and power; contemporary issues, changing political styles and processes, institution and underlying values of the American political system. Satisfies state requirements in U.S. Constitution and California state and local government.

200 Introduction to the Study of Politics (3)

Describing and evaluating politics; political science as an academic discipline.

298 Political Externship (3)

Politics for the nonmajor or beginning political science student. Work in campaigns or in the offices of elected public officials; supervision by faculty and cooperating agency; seminars and individual conferences. May be repeated once.

300 Contemporary Issues in California Government and Politics (3)

Prerequisite: Pol Sci 100. The political process in state and local institutions; crisis in the cities, flight to the suburbs and race relations. Comparisons will be made with other states and their subdivisions. Satisfies state requirement in California state and local government.

309 Introduction to Metropolitan Politics (3)

Prerequisite: Pol Sci 100. The inner city and suburbia. Political processes: power in the city, the urban-suburban relationship, political fragmentation and the national government in urban areas.

310 American Political Behavior (3)

Political behavior in America. Perspectives examined include those drawn from psychology and biology; the analysis of social structure and politics as rational behavior.

311 Research Proseminar in American Political Behavior (3)

Prerequisite: Poli Sci 310 (may be taken concurrently). Research concepts and techniques applied to an individual project in American political behavior.

315 American Political Process (3)

The structure, functions and relationships among American national institutions: executive, legislative, judicial, press, political parties and pressure groups—with a focus on the decision-making process.

317 Black Politics (3)

(Same as Afro 317)

320 Politics, Policy and Administration (3)

Public administration and the roles played by administrators in the formulation and execution of public policy.

321 Research Proseminar in Politics, Policy and Administration (3)

Prerequisite: Poli Sci 320 (may be taken concurrently). Research concepts and techniques applied to public administration and policy analysis.

330 Comparative Political Analysis (3)

Compares patterns of political behavior and interaction in various political systems.

340 Political Philosophy (3)

The major thinkers in the Western tradition of political philosophy from Plato to the present; the principal concepts and theories. (Not the same as Philosophy 345)

341 Research Proseminar in Political Philosophy (3)

Prerequisite: Poli Sci 340 (may be taken concurrently). Research concepts and techniques applied to an individual project in political philosophy.

347 Political Theory and Political Practice (3)

Thought and action in politics. Alternative modes of participation in political activity.

350 World Politics (3)

Political relationships among governments and other participants within the global system; foreign policy-making and implementation through such means as diplomacy, alliances, aid, force; the role of non-state actors such as the United Nations, multinational corporations and liberation movements.

351 Research Proseminar in International Politics (3)

Prerequisite: Poli Sci 350 (may be taken concurrently) or Poli Sci 352. Research design, strategies and techniques applied in the study of international politics.

352 American Foreign Policy (3)

United States' foreign policy since World War II. Institutions and bureaucracies of foreign policy decision-making, military and national security policy, domestic sources of foreign policy.

361 Model United Nations (2)

Prerequisites: Poli Sci 100. Preparation for and participation in model UN regional and MUN of the Far West conferences. Instruction on structures and functions of UN and related agencies. Guided research on country to be represented and agenda items to be discussed. May be repeated for credit.

375 Public Law (3)

Nature and function of public law particularly, within the Anglo-American political tradition. Emphasis upon impact of legal and political institutions upon each other.

376 Research Proseminar in Public Law (3)

Prerequisite: Poli Sci 375 (may be taken concurrently) or consent of instructor. Research concepts, techniques and

legal tools applied to an individual research project in public law. Useful prelaw course.

405 Campaigns and Elections (3)

Prerequisites: Poli Sci 100 and consent of instructor. An exploration of modern political campaigns in America focusing on new types of candidates and electoral organizations; money, media and consultants; and methods of predicting and interpreting election results.

407 Quantitative Methods in Political Science (3)

Quantitative research methods in political science. Introduction to research design and statistical measures employed in analyzing social science research data.

410 Political Parties (3)

The structure and methods by which the political parties operate in the American political system with some comparisons to their structure and operation in other democratic societies.

411 Art of Administration (3)

Prerequisite: consent of instructor. Public administration as "art" rather than "science." Administrative novels and other fictional literature, and other audio-visual media.

412 The Art of Politics (3)

Prerequisite: consent of instructor. Politics as practiced and understood by practitioners of the art. A seminar which features guest lecturers.

413 Pressure Groups and Public Opinion (3)

The power and growth of farm, labor, business and noneconomic pressure groups; interest group activity in Congress, administration and courts; public opinion and propaganda.

414 The Legislative Process (3)

The legislative process in Congress and state legislatures. Policy, representation, reform and behavior of individual legislators. Bureaucratic lawmaking and the legislative roles of the President and interest groups.

415 Power and Participation in America (3)

How and why people behave politically in the United States. The "power elite" debate, the changing American voter and interest group politics.

416 The American Presidency (3)

Presidential power, the resources on which that power is based, and the limitations on the use of that power. The relations between the President and Congress, the bureaucracy, the press and the public.

420 Governing the Urban Community (3)

Ideas, institutions, interests in the governance of urban communities emphasizing decision-making, problem-solving, policy-making and administrative institutions.

421 Public Finance Administration (3)

Prerequisite: Poli Sci 320. Survey of national, state and local taxing and spending systems. Emphasis on political determinants of budget policy.

422 Public Personnel Administration (3)

Prerequisite: Poli Sci 320. The civil service and the merit system; recruitment procedures and examinations; position classification, salary structures, retirement plans, in-service training, employee organizations and personnel supervision.

423 Regional Planning and Development (3)

Prerequisite: Poli Sci 320 or consent of instructor. Governmental policies, procedures and agencies involved in plan-

ning and development of regions. Regional problems and objectives, emerging views of regional planning and investment allocation during the development process.

424 Urban Planning and Development (3)

Prerequisite: Poli Sci 320 or consent of instructor. City planning; the legal bases and fundamental concepts of planning; and the organization of the general plan, zoning laws and administration, urban renewal, and capital programming.

425 Comparative Public Administration (3)

Prerequisites: Poli Sci 320. Cross-cultural comparison of public administration system; application of different models of analysis to administrative institutions; bureaucracy; ecology of public administration in modernized and developing societies; and the role of public administration in nation-building.

426 Collective Bargaining in the Public Sector (3)

Prerequisite: Poli Sci 320. Bargaining in the public sector; principles, practices, problems in negotiating labor contracts; mediation, conciliation, fact-finding and arbitration settlement techniques; government as an intervenor, moderator and judge of last resort.

427 Current Issues in Urban and Metropolitan Policy (3)

Policy issues and alternatives in urban and metropolitan problem areas such as law enforcement, transportation, housing or education.

429 Public Personnel Training (3)

Training methodology in public administration. The problems, methods and institutions in the training of public personnel, emphasizing labor-management relations.

430 Government Politics of a Selected Nation-State (3)

Prerequisite: Poli Sci 330 or consent of instructor. The political institutions and processes of a selected nation-state. May be repeated for credit.

431 Government and Politics of a Selected Area (3)

Prerequisite: Poli Sci 330 or consent of instructor. The structures and functions of national political systems in a selected geographic area. May be repeated for credit.

440 Political Ideologies and Attitudes (3)

The content and historical evolution of modern ideologies such as liberalism, democracy, communism, socialism and fascism. Their relationship to social and political change.

442 Problems of Democratic Political Thought (3)

Philosophies and theories of democratic political systems; American political thought.

443 The Theory and Philosophy of Marxism (3)

Prerequisite: Poli Sci 340. Marxist theory and philosophy from its pre-Hegelian roots to the present.

445 Political Learning and Socialization (3)

Prerequisite: Poli Sci 340 or consent of instructor. Explores the bases for political attitudes, beliefs and values as predicting political behaviors; social position and socialization through family, school and peers as determinants of political orientations; application of political learning to political change, education and manipulation.

446 Corruption, Ethics and Public Policy (3)

Ethical problems which face persons in the public service. The focus is on practical decision-making.

- 451 Problems in International Politics (3)**
Prerequisite: Poli Sci 350. Selected contemporary problems in world politics. See department bulletin for subject focus each semester. May be repeated for credit.
- 452 Foreign Policy of a Selected Country or Group of Countries (3)**
Objectives, capabilities, policy-making processes and implementation of the foreign policies of a particular country or group of countries. Focus may be on United States, Soviet Union, Latin America or other countries or areas. May be repeated for credit.
- 453 International Conflict, War and Peace (3)**
Prerequisite: Poli Sci 100. The nature of international conflicts in contemporary society and the causes and consequences of war as means of resolving these conflicts. Examination of means and incentives to avoid war.
- 455 Comparative Analysis of Foreign Policies (3)**
Frameworks for analyzing the foreign policies of state; domestic and external determinants of foreign policy actions; foreign policy decision-making institutions and processes, foreign policy objectives and instruments.
- 456 The National Security Establishment (3)**
Conflicting theories of national security, the functions of defense and intelligence bureaucracies in foreign and domestic policy making, problems of arms control and the dangers to democratic values and institutions posed by the technology of national security.
- 457 Politics of International Economics (3)**
Prerequisite: Economics 100 or consent of instructor. The link between economics and international politics. The political economy of free trade and imperialism, of neo-colonialism and foreign aid.
- 460 The Chicano and Politics (3)**
(Same as Chicano 460)
- 461 The United Nations and Other Public International Organizations (3)**
Prerequisite: Poli Sci 350. Structure and functions of United Nations and various specialized and regional international organizations.
- 470 Judicial Process (3)**
Prerequisite: Poli Sci 375 or consent of instructor. The nature, functions and roles of courts in the Anglo-American legal system; the nature, functions and roles of major participants in the American legal system, including judges, attorneys and citizens.
- 473 Introduction to Constitutional Law (3)**
The role of the courts, the presidency, Congress and the states within the U.S. constitutional system. Judicial review, presidential impoundment and impeachment, presidential foreign and military powers, regulation of the economy and public morals, and congressional investigations.
- 474 Seminar in Constitutional Law: Civil Rights and Civil Liberties (3)**
Prerequisite: Poli Sci 375 or consent of instructor. Case studies in constitutional rights and liberties, involving relationships between the individual and government which are affected by the Bill of Rights and the 14th Amendment.
- 475 Administrative Law (3)**
Prerequisite: Poli Sci 320 or 375 or consent of instructor. Law as it affects public officials and agencies in their relations with private citizens and the business community. Case materials and regulatory practices.
- 482 Environmental Policy and Politics (3)**
The nature of environmental problems, national and international. The public policy-making process and environmental issues.
- 484 Urban Planning Methods (3)**
(Same as Geography 484)
- 485 Politics of Change (3)**
A specific cultural, religious or ethnic interest group; the impact of an ideology, movement or individual or political processes and behavior. Role of women, politics of women and the law, women's liberation movement. May be repeated for credit.
- 491 International Internship (3)**
Prerequisite: consent of instructor. 10 hours work per week with officials of foreign governments in the Los Angeles-Orange County area, usually consular officials. Individual supervision by faculty and cooperating officials. Interns meet with instructor by arrangement.
- 492 Prelaw Internship (3)**
Prerequisite: consent of instructor. Designed to acquaint students with the legal profession in the public rather than private spheres. A supervised working commitment of 10 hours weekly with an assigned individual or organization.
- 494 Honors Tutorial in Politics (1)**
Prerequisites: senior standing and admission to Honors in Political Science. This is the core course for Honors in Political Science program. Attendance at presentations by political scientists and critiques thereof. The culminating research for the Honors work will be presented in the tutorial.
- 497 Government Internship (3)**
Prerequisites: public administration concentration and consent of instructor. Students work 15-20 hours per week as supervised interns in a public agency. Supervision by the faculty and cooperating agency. In addition, a weekly three-hour seminar.
- 498 Political Internship (3)**
Prerequisites: political science concentration and consent of instructor. Students work 8-12 hours per week with elected officials or candidates for elective office. Individual supervision by the faculty and cooperating individuals. Interns meet with instructor by arrangement. May be repeated for credit.
- 499 Independent Study (1-3)**
Prerequisite: open to advanced students in political science with consent of department chair.
- 509 Administrative Organization and Process (3)**
Prerequisite: consent of instructor. For graduate student in public administration who have not had an introductory course in public administration. Organizational theory and practice, decision making, systems analysis, performance evaluation and administrative improvement.
- 511 Seminar in American Politics (3)**
Prerequisite: consent of instructor. The political process in the United States.
- 519 State and Local Government (3)**
The structure, processes, functions and interrelationships of state and local governments in American society. State,

county, municipal and special district government in California as compared with other states.

521 Seminar in Public Administration Theory (3)

Prerequisites: A course in basic statistics and Poli Sci 320 or 509. The concepts, models and ideologies of public administration within the larger political system.

522 Seminar in Public Personnel Administration (3)

Prerequisites: A course in basic statistics Poli Sci 320 or 509. Topics in public personnel administration.

523 Administrative Research and Analysis (3)

Prerequisites: a course in basic statistics and Poli Sci 320 or 509. Conceptual methods employed in administrative research and analysis: Organization and procedure of surveys, performance evaluation, social impact assessment, computer data analysis and report writing.

524 Seminar in Environmental Planning (3)

Prerequisite: a course in basic statistics and Poli Sci 320 or 509. Problems and issues in the physical and human environment of the urban community.

525 Seminar in Metropolitan Area Government (3)

Prerequisites: A course in basic statistics and Poli Sci 320 or 509. Political and policy issues facing metropolitan America, and the capacity of governmental institutions to handle urban problems.

526 Seminar in Administrative Behavior (3)

Prerequisites: A course in basic statistics and Poli Sci 320 or 509. Management oriented analysis of organizational behavior. Treatment of decision making, leadership, communication, group dynamics and ethical aspects of organization.

528 Seminar in Public Administration and Policy (3)

Prerequisites: a course in basic statistics and Poli Sci 320 or 509. Interplay between public policy and program administration in federal government. Discussion of administra-

tors' role in policy development, administrative discretion in implementing policy, use of political resources by administrators.

529 Seminar in Public Management Analysis (3)

Prerequisite: Poli Sci 523. Application of quantitative techniques to management and planning of public organizations. Topics include network analysis, capacity management, management information systems, productivity measurement, forecasting, cost-benefit analysis, simulation and marketing.

530 Seminar in Cross-National Politics (3)

Prerequisites: consent of instructor. The integration of international relations and comparative politics, emphasizing the interdependence of nations and non-state actors in the world political system.

540 Seminar Readings in Political Philosophy (3)

Prerequisite: undergraduate preparation in political theory or philosophy. This course examines the foundations of contemporary political science through readings in the classics of political philosophy.

541 Seminar in Contemporary Political Theory (3)

Analysis of contemporary trends in the study of politics. Emphasis on behavioral political science, criticisms of it and current empirical approaches to the study of politics.

597 Project (3)

Prerequisite: consent of instructor.

598 Thesis (3-6)

Prerequisite: consent of instructor.

599 Independent Graduate Research (1-3)

Prerequisite: consent of department chair. To be taken only after or concurrent with the completion of the required 15 units of graduate seminars.

Department of Psychology

Department Chair: Patricia Worden
Department Office: Humanities 830M
Advisement Office: Humanities 520
Graduate Office: Humanities 830L

Programs Offered

Bachelor of Arts in Psychology

Minor in Psychology

Master of Arts in Psychology

Master of Science in Psychology

Concentration in Clinical/Community Psychology

Faculty

Frank Bagrash, Michael Birnbaum, Chris Cozby, Ernest Dondis, Peter Ebersole, John Fantuzzo, Allen Gottfried, Daniel Kee, Richard Lindley, Carol Lindquist, Richard Lipka, Richard McFarland, Douglas Navarick, David Perkins, Ronald Riggio, Michael Scavio, Don Schweitzer, William Smith, Edward Stearns, William Vandament, George Watson, Arthur Webber, Margaret White, Stanley Woll, Patricia Worden

Advisers

Undergraduate: William Smith and Ernest Dondis

Graduate MA Coordinator: Daniel Kee

Graduate Clinical/Community: Carol Lindquist

INTRODUCTION

Psychology is a science that has as its central theme the study of behavior. Psychology involves studying about how we interact with one another and our environment. Psychology is practical; it is concerned with improving the quality of life. In order to achieve these ends psychologists work in a broad range of research and applied settings. The psychology major is designed to provide each student with a comprehensive overview of the major fields of psychology and methods used in psychological research. The major is also designed to assist the student in selecting elective courses which can form a concentration in an area of the student's interest. These specialty areas might include clinical/community, social, developmental/child, industrial/organizational, learning/cognitive and physiological psychology. The major provides a basis for careers in a variety of psychology related occupations including mental health agencies, hospitals, teaching, business and public organizations. The major also prepares students for graduate training in fields such as clinical psychology; marriage, family and child counseling; teaching; social work; law; business and management and public administration.

All students who declare psychology as their major should meet with one of the undergraduate advisement coordinators during their first semester to develop a study plan. Students should also obtain a copy of the *Psychology Department Student Handbook* from the department office. Early consultation with an adviser is especially important for those interested in pursuing graduate training, careers in psychology or related fields, teaching credentials or a double major or minor.

Community College Transfer Students: A maximum of nine lower division units of psychology courses may be applied toward the 38 units required for the psychology major. The nine units must fit the course description requirements listed in this catalog for Psych 101, 202 and 203. Additional lower-division units taken in psychology at a community college and approved by the university may be used for university credit for graduation.

Credential Information

The Department of Psychology offers both an approved waiver program for the multiple subject (elementary) teaching credential and an approved waiver program for the single subject (secondary) teaching credential.

Students interested in majoring in psychology and preparing for an elementary or secondary teaching credential should contact the psychology undergraduate advisement coordinator and the Office of Admission to Teacher Education.

BACHELOR OF ARTS IN PSYCHOLOGY

Lower Division (9 units required)

- | | |
|----------------|------------------------------------|
| Psychology 101 | Introductory Psychology (3) |
| Psychology 202 | Research Methods in Psychology (3) |
| Psychology 203 | Elementary Statistics (3) |

Upper Division (29 units required)

Required Courses (17 units)

One of the following four laboratory courses (3 units):

- | | |
|----------------|---------------------------------|
| Psychology 303 | Sensation and Perception (3) |
| Psychology 304 | Comparative Animal Behavior (3) |
| Psychology 305 | Information Processing (3) |
| Psychology 306 | Physiological Psychology (3) |

One of the following three courses (3 units):

- | | |
|----------------|-------------------------------|
| Psychology 331 | Psychology of Personality (3) |
| Psychology 351 | Social Psychology (3) |
| Psychology 361 | Developmental Psychology (3) |

Each of the following five courses:

- | | |
|-----------------|--|
| Psychology 300A | Introduction to Computer Use in Psychology (1) |
| Psychology 300B | Statistical Computer Packages (1) |
| Psychology 302 | Learning and Memory (3) |
| Psychology 408 | History of Psychology (3) |
| Psychology 461 | Psychological Testing (3) |

Elective Courses (12 units):

A full range of options is available for the 12 units of psychology upper-division (300/400 level) electives. These courses should form an area of concentration for students and should be selected in consultation with a psychology advisor.

Special Requirements

Each course counted toward the major must be completed with a grade of C or higher. No more than a total of three units of either independent study or independent research (Psychology 498 or 499) may be applied toward the major. No more than three units of internship (Psychology 495) may be applied toward the major. A minimum of 18 units counted toward the Psychology major must have been completed at CSUF.

MINOR IN PSYCHOLOGY

Lower Division (6 units)

- | | |
|----------------|------------------------------------|
| Psychology 101 | Introductory Psychology (3) |
| Psychology 202 | Research Methods in Psychology (3) |

Upper Division (6 units)

One of the following courses (3 units):

- | | |
|----------------|-----------------------------------|
| Psychology 302 | Learning and Memory (3) |
| Psychology 303 | Sensation and Perception (3) |
| Psychology 304 | Comparative Animal Behavior (3) |
| Psychology 305 | Information Processing (3) |
| Psychology 306 | Physiological Psychology (3) |
| Psychology 453 | Attitude Formation and Change (3) |
| Psychology 463 | Experimental Child Psychology (3) |

One of the following courses (3 units):

- | | |
|----------------|-------------------------------|
| Psychology 331 | Psychology of Personality (3) |
| Psychology 341 | Abnormal Psychology (3) |
| Psychology 351 | Social Psychology (3) |
| Psychology 361 | Developmental Psychology (3) |

Electives (9 units)

Students completing the minor may choose 9 units of upper-division psychology courses or 6 units of upper-division courses and Psychology 203 (Elementary Statistics).

Special Requirements

The special requirements that are listed under the major apply to the minor as well.

Other Minors

The Psychology Department is a participant in minors in gerontology and women's studies. Course work that is applied toward the major may not also be applied toward the minor.

MASTER OF ARTS IN PSYCHOLOGY

The degree program provides advanced course work and research training in core areas of Psychology. Completion of the MA can facilitate application to Ph.D. programs in Psychology and provides skills important to careers in education, the health professions and industry.

Admission to Graduate Standing: Classified

An applicant who meets the requirements listed below, in conjunction with the development of an approved study plan, may be evaluated for classified graduate standing.

- A. Satisfaction of the general prerequisites for graduate studies which include a baccalaureate degree from a regionally accredited institution and a grade point average of at least 2.5 in the last 60 semester units attempted (see the catalog section on Graduate Admissions for complete details).
- B. A 2.5 overall grade-point average and a 3.0 average in Psychology.
- C. Approved lower-division equivalent courses in volving the following Psychology Classes:
 1. Research Methods (e.g., Psychology 202)
 2. Elementary Statistics (e.g. Psychology 203)
- D. Approved upper division equivalent course work which includes classes in the History of Psychology (e.g., Psychology 408) and Advanced Statistics (e.g., Psychology 465). Also *four* additional psychology classes completed from the areas below; classes must be from *different* areas and *one* must be a lab class:
 1. Learning and Memory
 2. Cognition/Information processing
 3. Sensation & Perception/Physiological
 4. Social/Personality
 5. Developmental
 6. Abnormal/Clinical
- E. Satisfactory performance in the Aptitude and Advanced/Subject Psychology Tests of the Graduate Record Examination (GRE).
- F. Three satisfactory letters of recommendation. One must be from a psychology professor.
- G. Passing the University's Examination in Writing Proficiency (EWP).

Invitation to the program is based on competitive evaluation of qualifications and is at the sole discretion of the Psychology Department's Graduate Studies Committee. New students are admitted to the Master of Arts program primarily in the fall, some spring admissions may be accommodated. Both the University and Department applications must be completed on time for full consideration. Application deadlines for the return of all materials are *March 15* for the fall semester and *November 1* for the spring semester. Departmental forms may be obtained from the Graduate Office of the Psychology Department.

Admission to Graduate Standing: Conditionally Classified

It may be possible for an applicant with minimal deficiencies in prerequisite requirements, but who is otherwise highly qualified, to be admitted conditionally to the program. Provisions for the removal of these deficiencies would be outlined as part of the conditional acceptance. When the deficiencies have been successfully removed, a regular invitation to join the program as a classified graduate student may be offered after review by the Department's Graduate Studies Committee.

Study Plan

The Master of Arts in Psychology requires a *minimum* of 30 units of approved graduate work, including the completion and acceptance by the Department of a written thesis which has been defended orally.

Each student, in consultation with the Graduate Coordinator and a Faculty Mentor, will develop a program of study. This program will be outlined on an official university study plan form and submitted to the Department's Graduate Studies Committee for review and approval.

Required classes for the M.A. in Psychology include the following 3 unit classes:

	Units
Psychology 500-level Research Course	3
Psychology 599 Independent Graduate Research	3
Psychology 510 Experimental Design	3
Psychology 400-level Content Classes	9
Three 400 level- Psychology classes must be completed from the following categories:	
Experimental/Cognitive	
Social/Personality/Industrial	
Clinical/Community	
Developmental	
Quantitative	
Sensory Processes/Physiological	
Psychology 500-level Seminars	6
Two 500-level seminars from the following list are required:	
Psychology 520 Experimental Psych	
Psychology 521 Personality	
Psychology 522 Developmental Psych	
Psychology 523 Social Psych	
Psychology 500-Level Elective Class and Psychology 598 Thesis (3 units) or Psychology 598 Thesis (6 units)	6
Total	30

*A list of qualifying classes for each category is available from the Graduate Adviser. 500-level classes in Psychology may be substituted with permission of the Graduate Adviser.

Students must complete the Psychology 500-level research course within their first two semesters in the program. To be advanced to candidacy for the M.A. Degree, students must maintain a 3.0 grade-point average for study plan classes, and must have received a grade of "B" or better in the Psychology 500-level research course, Psychology 510 and the three content classes. A successful oral defense of the thesis is also required.

Following University regulations, a maximum of five years is normally allowed for completion of course work and other requirements.

For further details, contact the Graduate Program Adviser of the Department of Psychology.

MASTER OF SCIENCE IN CLINICAL/COMMUNITY PSYCHOLOGY

The Master of Science requires a two-year commitment to full-time course work. It is an applied pro-

gram in clinical and community psychology providing an introduction to the research literature, psychodiagnosis, and practical, supervised experience in individual, group, family, marital, child and behavior therapy. The program provides preparation for professional Ph.D. programs, and for paraprofessional or professional work in a variety of mental health settings. The program also contains the course work required for the Marriage, Family, Child Counseling (MFCC) license as it is currently defined.

Admission to Graduate Standing: Classified

An applicant who meets the following requirements may be considered for classified graduate standing upon development of an approved study plan:

- A. satisfaction of the general prerequisites for graduate work which include a baccalaureate degree from a regionally accredited institution and a grade-point average of at least 2.5 in the last 60 semester units attempted (see section of this catalog on admission of graduates for complete statement and procedures);
- B. a 2.5 overall grade point average and a 3.0 average in Psychology;
- C. a major in Psychology or approved equivalent course work of 33 units involving the following courses:

Lower Division (9 units)

1. Psychology 101 Introductory Psychology
2. Psychology 202 Research Methods in Psychology
3. Psychology 203 Elementary Statistics

Upper Division (24 units)

4. Psychology 302 Learning and Memory
5. Psychology 303 Sensation and Perception or Psychology 304 Comparative Animal Behavior or Psychology 305 Information Processing or Psychology 306 Physiological of Psychology
6. Psychology 331 Psychology of Personality or Psychology 351 Social Psychology or Psychology 361 Developmental Psych
7. Psychology 341 Abnormal Psychology
8. Psychology 461 Psychological Testing
9. Nine elective units chosen from courses at the upper-division level
- D. satisfactory performance in the Aptitude and Advanced Psychology Tests of the Graduate Record Examination;
- E. three satisfactory letters of recommendation;
- F. passing the university's EWP (Examination in Writing Proficiency).

G. paid or volunteer experience in human services.

New students are admitted to the Master of Science program in the fall. Those to be admitted will be selected in the spring from the most qualified applicants at the sole discretion of the department's Graduate Studies Committee. In addition to the University application, a departmental application form, obtainable by mail from the Psychology Department's graduate office, must be completed and returned to that office. The application deadline for the return of all materials including GRE scores is March 15 for fall semester entry.

Admission to Graduate Standing: Conditionally Classified

It may be possible for applicants who have minimal deficiencies in prerequisite requirements, as detailed above, but who are otherwise highly qualified, to be admitted in conditionally classified graduate standing, with provisions made for removal of deficiencies prior to the granting of classified standing. For further information, consult the graduate program adviser.

Study Plan

The Master of Science in Psychology requires 48 units of approved graduate work, done in a four semester sequence, including the completion and acceptance by the Psychology Department's Graduate Studies Committee of a written comprehensive paper.

The student, in consultation with his/her program adviser, shall develop a study plan which will be submitted to the Graduate Studies Committee of the Department of Psychology for approval.

Course Requirements

Fall - First Year

	Units
Psychology 501A Advanced General Psychology I	3
Psychology 542 Proseminar: Clinical Psychology	3
Psychology 544A Psychodiagnostics	3
Psychology 545 Advanced Psychopathology	3

Spring - First Year

Psychology 544B Psychodiagnostics	3
Psychology 547 Individual Therapy Techniques	3
Psychology 549 Marriage, Family, and Child Therapy	3
*Elective	3

Fall - Second Year

Psychology 561 Proseminar: Community Psychology	3
Psychology 562 Group Therapy	3
Psychology 566A Fieldwork	4
*Elective	3

Spring - Second Year

Psychology 565 Behavior Therapy	3
Psychology 566B Fieldwork	4

Psychology 597 Graduate Project	1
*Elective	3
Total	48

*Electives should be chosen from Psychology 465, 467, 474, 475, 510, 522, 534, 578 or an alternative 400/500-level elective chosen with the approval of the graduate adviser.

The student must maintain a B average in all course work and must receive a grade of B or better in Psychology 501A.

It should be noted that successful completion of the course work is not sufficient to permit continuation in the program. In addition, faculty judgment must be satisfied with respect to the student's effectiveness as well as professional and ethical behavior in dealing with potential clients. Continuation in the program is contingent upon satisfactory performance in all aspects of the program as judged by the Graduate Studies Committee.

Psychology Courses

101 Introductory Psychology (3)

Basic concepts and problems in psychology. Perception, learning, cognitive processes, development, motivation, personality, abnormal behavior, physiological and social psychology.

110 Reasoning and Problem Solving (3)

The nature of critical thinking, models and strategies; common fallacies of reasoning, self-regulation in the thinking process; application of critical thinking to specific areas.

150 Contemporary Issues in Psychology (3)

Prerequisite: Psychology 101 or consent of instructor. A selection of topics of current interest and importance in psychology. Topics will vary depending upon the lecturers and upon the topics that are current when the course is offered.

202 Research Methods in Psychology (3)

Prerequisite: Psychology 101. The fundamentals of psychological research methods. Participation in conducting experiments and analyzing data, interpreting results, and writing research reports. (2 hours lecture, 3 hours laboratory)

203 Elementary Statistics (3)

Descriptive statistics, hypothesis testing, analysis of variance, correlational techniques.

210 Psychology of Military Leadership (3)

Psychological theories, models and concepts of leadership and management as applied to the military. Style and role of the military leader in applying principles of motivation, organizational behavior and participative group management. No credit toward the major in psychology.

289 Computer Methods for the Social Sciences (3)

(Same as Sociology 289)

300A Introduction to Computer Use in Psychology (1) (Formerly 204)

Prerequisite: completion of general education math requirement. General introduction to computer systems, data input, use of software packages and the role of computers in research, teaching, counseling and testing. Not open to students who have completed Computer Science 112 or Psychology/Sociology 289.

300B Statistical Computer Packages (1)

Prerequisite: Psychology 203 and 300A or concurrent enrollment. Introduction to major statistical computer packages including SPSS, Minitab, SAS, BMDP, and available microcomputer programs.

302 Learning and Memory (3)

Prerequisites: Psychology 101, 202, 203 or consent of instructor. Theoretical and experimental investigations in learning, memory, thinking, problem solving and motivation. Written research reports required. (2 hours lecture, 3 hours laboratory)

303 Sensation and Perception (3)

Prerequisites: Psychology 101, 202, 203 or consent of instructor. Theoretical and experimental investigations in sensory and perceptual processes, including vision and audition. (2 hours lecture, 3 hours laboratory)

304 Comparative Animal Behavior (3)

Prerequisites: Psychology 101, 202, 203 or consent of instructor. Theoretical and experimental investigations in animal behavior, including humans. The interspecies comparisons of behavior and sensory, motor, endocrine and neural structures. (2 hours lecture, 3 hours laboratory; one or more field trips required)

305 Information Processing (3)

Prerequisites: Psychology 101, 202, 203 or consent of instructor. Theoretical and experimental investigations of the representation, structure, and utilization of information in humans. (2 hours lecture, 3 hours laboratory)

306 Physiological Psychology (3)

Prerequisite: Psychology 202 or Biological Science 101 or equivalent. Anatomy and physiology of the nervous system, role of neural and humoral agents in complex behavior. Relation between behavioral and biological processes. (2 hours lecture, 3 hours laboratory)

310 Psychology of Women (3)

Prerequisite: Psychology 101. Survey of theories, research and implications for the psychological study of gender differences and similarities, particularly as pertains to the psychological characteristics and problems of women.

311 Educational Psychology (3)

Prerequisite: Psychology 101. Application of psychological research and theory to educational processes, including learning, motivation, individual differences, teaching methods and evaluation.

312 The Psychology of Human Sexual Behavior (3) (Formerly 301)

Prerequisite: Psychology 101 or consent of instructor. Topics in human sexual behavior integrating sexuality as social, clinical, developmental and biological. Sexual identity, sexual behaviors, romantic love, causes and treatment of sexual dysfunctions.

331 Psychology of Personality (3)

Prerequisite: Psychology 101. Broad survey of research, theory and assessment techniques in the area of personality.

341 Abnormal Psychology (3)

Prerequisite: Psychology 101. Symptoms, causes, treatment and prevention of mental problems; the anxiety disorders, the personality disorders, psychophysiological disorders.

ders, psychoses, substance use disorders, sexual disorders and organic disorders.

350 Environmental Psychology (3)

Prerequisite: Psychology 101 or consent of instructor. Theory, research and method in the study of behavior-environment relationships. The influence of such variables as population density and urban design on human behavior.

351 Social Psychology (3)

Prerequisite: Psychology 101. Phenomena related to social behavior and the nature of group processes and influences including attitude formation and change, aggression, attraction, altruism, affiliation and socialization.

361 Developmental Psychology (3)

Prerequisite: Psychology 101. Psychological and physical development from birth through adulthood. Theories, methods and research findings regarding the development of perception, cognition, learning, personality and social behavior.

362 Psychology of Aging (3)

Prerequisite: Psychology 101. Characteristics of humans during the adult years. Topics include physical, intellectual, cognitive, personal, social and psychological development, vocational and family changes, retirement and death.

364 Intelligence: A Life-span Perspective (3)

Prerequisite: Psychology 101 or consent of instructor. Nature, determinants and consequences of intelligence. Sociopolitical aspects of the testing movement. Stability, change and prediction of IQ, social and biological influences, educational and occupational consequences, genetic vs. environmental controversy.

391 Industrial/Organizational Psychology (3)

Prerequisite: Psychology 101. Traditional and current psychological principles and techniques in industrial and business settings. Selection, placement, training, work motivation, human factors, environmental influences, system safety, product liability, problems of people at work, organizational development and consumer behavior.

408 History of Psychology (3)

Prerequisite: Completion of nine units of upper division psychology courses. The development of psychology from early times to the present; major traditions and conceptual issues.

412 Theories of Learning (3)

Prerequisite: Psychology 302 or consent of instructor. Principles of learning according to the major theoretical systems. Critical evaluation of the theories and systems.

413 Perception (3)

Prerequisite: Psychology 303 or consent of instructor. Psychological problems in perception.

415 Cognitive Processes (3)

Prerequisites: Psychology 302, 303 or consent of instructor. Theory and research with respect to problem solving, thinking, concept learning, language, decision making and judgment, cognitive structure, cognitive development.

417 Psycholinguistics (3)

Prerequisite: six hours of upper-division work in Psychology or Linguistics, or consent of the instructor. Psychological and linguistic approaches to the study of language. Innate and learned aspects of language development, motivational and social aspects of language, symbolism, language disorders and universals. (Same as Linguistics 417)

431 Theories of Personality (3)

Prerequisite: Psychology 331. Traditional and contemporary theories of personality, including psychoanalytic, humanistic-existential, behavioral, trait and social interaction approaches.

451 Experimental Social Psychology (3)

Prerequisites: Psychology 203 or equivalent, 202 and 351. Topics in social behavior, group processes and influences. Laboratory experiments in attitude formation and change; group processes such as communication, problem solving, and norm formation; interpersonal influence and perception. (2 hours lecture, 3 hours laboratory)

453 Attitude Formation and Change (3)

Prerequisite: Psychology 351 or consent of instructor. The theories of attitude formation and change; research methodologies and measurement strategies. (2 hours lecture, 3 hours laboratory)

454 Social Cognition (3)

Prerequisite: Psychology 351 or 415. Theory and research on the processing and representation of social information. Cognitive and social psychology, including impression formation, attribution theory, non-verbal communication, sociolinguistics, developmental issues.

461 Psychological Testing (3)

Prerequisite: Psychology 203 or equivalent. Intelligence, aptitude, interest, and personality testing. Theory, construction, evaluation, interpretation and uses of psychological tests.

463 Experimental Child Psychology (3)

Prerequisites: Psychology 202 and either 361 or Child Development 312 and consent of instructor. Research methodology in developmental psychology. Critical examination of empirical studies. Design and execution of an original empirical investigation in an area of the student's choice. (2 hours lecture, 3 hours laboratory)

464 Advanced Developmental Psychology (3)

Prerequisites: Psychology 361 or Child Development 312 and consent of instructor. Review and analysis of major theoretical and empirical issues in child developmental psychology.

465 Advanced Psychological Statistics (3)

Prerequisite: Psychology 203. General linear model, regression, analysis of variance techniques and applications to research design and evaluation of data.

466 Social Science Computer Applications (3)

Prerequisite: Psychology 203, 300A, 300B or consent of instructor. Computers in psychology. Batch processing; interactive computing; on-line experimentation.

467 Multivariate Statistics for Psychology (3)

Prerequisite: Psychology 465 or consent of instructor. Bivariate and multivariate regression, multivariate analysis of variance, discriminant analysis, factor analysis, structural equations, and applications to psychological research.

470 Behavior Modification (3)

Prerequisites: Psychology 101, 341, and junior or senior standing. Recommended: Psychology 202 or 302. Exposition and evaluation of theory, research and procedures for human behavior modification.

472 Community Psychology (3)

Prerequisites: Psychology 101, 341, or consent of instructor. Theory and research. A survey of a variety of programs developed within this model; their service delivery aspects and the methodology of program evaluation.

474 Medical Psychology (3)

Prerequisites: Psychology 101 and 341 or consent of instructor. Behavioral medicine; neuropathology; clinical neuropsychology; psychosomatic, nutritional, endocrine and developmental disorders.

475 Psychopharmacology (3)

Prerequisite: Psychology 321 or 15 units of biological science. Basic principles underlying the use of drugs and related substances to modify experience and behavior. Historical and cultural variations in drug usage. Psychological, medical and social potentialities and limitations of these techniques.

476 Developmental Psychopathology and Assessment (3)

Prerequisite: Psychology 341 or 361 or consent of instructor. Psychopathology from a developmental perspective. Pathogenic influences during childhood. Causes, classification, incidence and research on behavior disorders and problems in childhood. Assessment approaches and techniques.

481 Survey of Clinical Psychology (3)

Prerequisites: Psychology 331, 341 and 461. Methods, diagnosis, therapeutic techniques, research, and problems.

495 Internship in Psychology (3)

Prerequisites: 9 units of psychology and consent of instructor. Supervised experience in an off-campus location. Class meetings will be spent discussing the internship experience both from a practical and a theoretical standpoint. Application forms must be completed prior to enrollment. No more than three units of credit towards the major.

496 Student-to-Student Tutorials (1-3)

Consult "Student-to-Student Tutorials" in this catalog for more complete course descriptions.

498 Independent Laboratory Research (3)

Prerequisites: completion of one upper-division laboratory course in psychology and consent of instructor. Study plan must be approved by university census date. Individual laboratory investigation under direction of a faculty member. No more than three units of credit towards the major.

499 Independent Study (1-3)

Prerequisites: completion of at least one upper-division laboratory course in psychology and consent of instructor. Study plan must be approved by university census date. Individual library study under direction of a faculty member. No more than three units of credit toward the major.

501A Advanced General Psychology I (3)

Prerequisite: admission to a psychology graduate program or consent of instructor. To prepare beginning graduate students for more advanced courses. Intensive coverage of physiological psychology and two of the following three topics: personality, social, or developmental psychology.

510 Experimental Design (3)

Prerequisites: Psychology 203, 465 and admission to a psychology graduate program or consent of instructor. Principles and methods of planning and carrying out systematic investigations on the behavior of complex organisms,

interdependence of experimental design and statistical evaluation of results. Practice in formulation of testable hypotheses.

515 Seminar: Psycholinguistics (3)

(Same as Linguistics 515)

520 Seminar: Experimental Psychology (3)

Prerequisites: Psychology 465 and admission to a psychology graduate program or consent of instructor. Content of seminar varies each semester but is devoted to an examination of current topics within experimental psychology. May be repeated for credit.

521 Seminar: Personality (3)

Prerequisites: admission to a psychology graduate program or consent of instructor. Central problems in personality. May be repeated for credit.

522 Seminar: Developmental Psychology (3)

Prerequisites: Psychology 361 and admission to a psychology graduate program or consent of instructor. Theory and research in developmental psychology. May be repeated for credit.

523 Seminar: Social Psychology (3)

Prerequisites: admission to a psychology graduate program or consent of instructor. Central problems and major theories in the field of social psychology. May be repeated for credit.

531 Individual Mental Testing (3)

Prerequisites: Psychology 461 and admission to a psychology graduate program or consent of instructor. The major tests of intelligence. Practical experience in administration, scoring and interpretation of these instruments. (2 hours lecture, 3 hours laboratory)

534 Human Sexual Dysfunction (3) (Formerly 477)

Prerequisites: Enrollment in a graduate program or consent of instructor. Symptoms, causes, treatment and prevention of sexual disorders in males and females. Aging, sex and disability, drug complications. Ethical and legal, sex role, sexual identity, homosexuality, psychological, physiological and social-cultural issues. Treatment research.

542 Proseminar: Clinical Psychology (3)

Prerequisites: Psychology 481 or equivalent and admission to the graduate program or consent of instructor. Clinical psychology: legal, ethical, research issues in clinical psychology, diagnosis and interviewing techniques.

544A Psychodiagnostics A (3)

Prerequisite: admission to Master of Science Clinical/Community program or consent of instructor. A skills course in assessment issues, giving and scoring objective diagnostic testing including WAIS-R, WISC-R, Stanford-Binet and MMPI. Integration of testing with other diagnostic material. (2 hours lecture, 3 hours laboratory)

544B Psychodiagnostics B (3)

Prerequisites: admission to Master of Science Clinical/Community program or consent of instructor and successful completion of Psychology 544A. A laboratory course covering administration, scoring, and interpretation of traditional projective tests and relevant issues in testing assessment and research. (2 hours lecture, 3 hours laboratory)

545 Advanced Psychopathology (3)

Prerequisites: Psychology 341 or equivalent and admission to either the Master of Science Clinical/Community Program

or the Master of Arts Psychology Program or consent of instructor. In-depth study of diagnosis, etiology theories, treatments, research and prevention of psychopathology.

547 Individual Therapy Techniques (3) (Formerly 560)

Prerequisite: admission to Master of Science in Clinical/Community program or consent of instructor. Specific therapy techniques and general approaches to individual psychotherapy. Theoretical material, and the material's practical application to clients, with special emphasis on communication skills.

549 Marriage, Family and Child Therapy (3)

Prerequisites: Satisfactory completion of the first semester of the Master of Science Psychology Program. Marriage, family and child therapy: theory, techniques and research.

561 Proseminar: Community Psychology (3) (Formerly 540)

Prerequisite: Admission to Graduate Program or admission to the Master of Science Clinical/Community program or consent of instructor. Community psychology; its historical and philosophical roots, theoretical framework, research within the area, and current practical applications with particular emphasis on cross-cultural issues.

562 Group Therapy (3)

Prerequisite: satisfactory completion of the first year of work in the Master of Science Clinical/Community program or consent of instructor. Theory, research, and practice in group therapy.

565 Behavior Therapy (3) (Formerly 546)

Prerequisite: admission to Master of Science Clinical/Community program or consent of instructor. Behavior therapy, theory, research and practice. The student will design

and execute project in a clinical setting. (2 hours lecture, 3 hours laboratory)

566A,B Fieldwork (4,4)

Prerequisite: satisfactory completion of first year's work in the Master of Science in Clinical/Community program. Supervised clinical work in mental health agencies. (Minimum of 12 hours field experience per week.)

578 Substance Abuse (3)

Prerequisite: Admission to the graduate program or consent of instructor. The impact of alcoholism and drug abuse on the individual, family and community, clinical skills in the diagnosis and treatment of substance abuse, and research on diagnosis and outcome.

597 Graduate Project (I)

Prerequisite: Formal advancement to candidacy and consent of instructor. Development and submission of a major cumulative paper under the direction of a faculty member that integrates learning in the program with an applied area of student interest. Students select topics under the direction of a faculty member.

598 Thesis Research (3 or 6)

Prerequisites: formal advancement to candidacy and consent of instructor. Development of a proposal for a major piece of empirical research, execution of the study, analysis of the results and writing of a thesis.

599 Independent Graduate Research (3)

Prerequisites: admission to a psychology graduate program and consent of instructor. Empirical research in a selected area of psychology. Designed, conducted and written by the student with the collaboration of a member of the faculty. May be repeated for credit.

Department of Religious Studies

Department Chair: Daniel Brown
Department Office: Education Classroom 622

Programs Offered

Bachelor of Arts in Religious Studies

Minor in Religious Studies

Minor in Christian Studies

Minor in Jewish Studies

Minor in Peace Studies

Faculty

Daniel Brown, Donald Gard, Benjamin Hubbard,
George Saint-Laurent, James Santucci

Advisers

All programs: James Santucci

INTRODUCTION

Religious studies is the study of the forms, traditions and ideas of religions that have appeared in human culture. An open, academic examination of the relevance of beliefs, ethics, rituals, and worship in both Eastern and Western civilization for the cultural development of mankind is the basis of the discipline. It provides the intellectual tools and the scholarly background required for understanding various religions. Students are encouraged to ask questions which particular religions attempt to answer in their own way. Students who pursue the study of religion may expect to gain a fuller knowledge and appreciation of the impact of religion on individuals and society.

Prizes in Religious Studies

Two graduating seniors are acknowledged each year with the James O'Shea Award for Outstanding Scholarship and the Parkes/Fierman Award for Outstanding Interfaith Works both within and outside the university.

BACHELOR OF ARTS IN RELIGIOUS STUDIES

(Each course counted toward the major must be completed with a grade of C or higher.)

Language: One year of the classic languages of religious literature (e.g., Arabic, Greek, Hebrew, Latin or Sanskrit) required of all majors. One semester of two different languages may be taken.

Lower-Division Requirements: 12 units

- Religious Studies 200 Introduction to Christianity (3)
Religious Studies 210 Intro to Judaism (3)
Religious Studies 250 The Religion of Islam (3)
Religious Studies 270 Introduction to the Oriental Religions (3)

Upper-Division Requirements: 27 units

Western Religions: 6 units, (3 units from each section)

Section A: Scripture

- Religious Studies 330 Hebrew Scriptural Studies (3)
Religious Studies 331 New Testament Studies (3)

Section B: Development of Thought

- Religious Studies 335 Christianity and Judaism (3)
Religious Studies 345A History and Development of Christian Thought: The Beginning to 1274 (3)
Religious Studies 345B History and Development of Christian Thought: 1275 to the Present (3)
Religious Studies 346A History and Development of Jewish Thought: Biblical Origins to Maimonides (3)
Religious Studies 346B History and Development of Jewish Thought: 1204 to the Present (3)
Religious Studies 350 Major Christian Traditions (3)
Religious Studies 435 Old Testament Criticism (3)
History 405 History of the Jews (3)
History 417B Roman Empire (3)
History 421A History of the Christian Church to 1025 (3)
History 421B History of the Christian Church from 1025 to Present (3)
History 425B The Reformation (3)
History 466A Islamic Civilization: Arab Era (3)

Asian and Non-Western Religions: 6 units

- Religious Studies 370 Modern Non-Traditional Religious Movements in America (3)
Religious Studies 485 Major Religious Thinkers and Concepts (3)*
History 465A History of India (3)
Philosophy 350 Oriental Philosophy (3)
Religious Experience/Phenomenology of Religion: 6 units
Religious Studies 310 Introduction to Peace Studies (3)
Religious Studies 343 Religious Ethics (3)
Religious Studies 376 Dimensions of Religion (3)
Religious Studies 390 Religion and Mass Media

*When content deals with Oriental topic.

- Religious Studies 428 Great Religious Peacemakers (3)
Religious Studies 475 Anxiety, Guilt and Freedom (3)
Religious Studies 476 The Holocaust: The Destruction of European Jewry, 1933-1945 (3)
Religious Studies 487 Seminar in Peace Studies (3)
Anthropology 305 Anthropology of Religion (3)
Philosophy 348 Philosophy of Religion (3)
Sociology 458 Sociology of Religious Behavior (3)

All majors must take:

- Religious Studies 300 Methodologies of Religious Studies (3)

and two sections (with different topics covered) of

- Religious Studies 485 Major Religious Thinkers and Concepts (3)

Total units required for the major (including language) 45. Courses in other schools and departments may be acceptable upon consultation with the departmental adviser.

Writing Requirement

The course requirement of the university upper-division baccalaureate writing course is met through Religious Studies 485.

MINOR IN RELIGIOUS STUDIES

The minor in religious studies is composed of 24 units in religious studies exclusive of the general education requirements.

Lower Division: 12 units

- Religious Studies 110 Comparative Study of the World's Great Religions (3)

Any introductory course in psychology, sociology, anthropology, philosophy, etc., with the approval of the department chair.

Any two of the following:

- Religious Studies 200 Introduction to Christianity (3)
Religious Studies 210 Intro to Judaism (3)
Religious Studies 250 The Religion of Islam (3)
Religious Studies 270 Introduction to the Oriental Religions (3)

Upper Division: 12 units

- Religious Studies 485 Major Religious Thinkers and Concepts (two sections with different content) (3)

Six additional units in a package emphasis (i.e., Christianity, Judaism, Eastern Religions, etc.)

MINOR IN CHRISTIAN STUDIES

Students minoring in Christian Studies are required to take 21 units beyond general education courses. These units would be distributed as follows:

Required courses: 9 units in Religious Studies

- Religious Studies 110 Comparative Study of the World's Great Religions (3)
 Religious Studies 200 Intro to Christianity (3)
 Religious Studies 201 Origins of The New Testament (3)

Elective courses: 12 units, 6 of which are to be taken outside of Religious Studies; 6 of which must be taken in Religious Studies

- Religious Studies 331 New Testament Studies (3)
 Religious Studies 335 Christianity and Judaism (3)
 Religious Studies 343 Religious Ethics (3)
 Religious Studies 345A History and Development of Christian Thought: The Beginning to 1274 (3)
 Religious Studies 345B History and Development of Christian Thought: 1275 to the Present (3)
 Religious Studies 350 Major Christian Traditions (3)
 Religious Studies 485 Major Religious Thinkers and Concepts* (3)
 Art 302 Medieval Art (3)
 Art 431 Renaissance Art (3)
 Art 432 Baroque and Rococo Art (3)
 Comparative Literature 312 The Bible as Literature (3)
 History 421A The History of the Christian Church to 1025 (3)
 History 421B The History of the Christian Church from 1025 to the Present (3)
 History 425B The Reformation (3)
 History 483 American Religious History (3)
 Music 351A History and Literature of Music (3)
 Music 351B History and Literature of Music (3)
 Philosophy 348 The Philosophy of Religion (3)
 Sociology 458 Sociology of Religious Behavior (3)

MINOR IN JEWISH STUDIES

Students minoring in Jewish Studies are required to take at least one semester of Hebrew as well as at least 22 units for a total of 25 units beyond their general education requirements. These units would be distributed as follows:

Lower Division: 4 units in Foreign Languages
 Hebrew 101; 6 units in Religious Studies

- Religious Studies 110 Comparative Study of World's Great Religions (3)
 Religious Studies 210 Intro to Judaism (3)

Upper Division: 15 units, 9 of which must be in Religious Studies; 6 of which must be outside Religious Studies

- Religious Studies 330 Hebrew Scriptural Studies (3)
 Religious Studies 335 Christianity & Judaism (3)
 Religious Studies 343 Religious Ethics (3)
 Religious Studies 346A History and

- Development of Jewish Thought: Biblical Origins to Maimonides (3)
 Religious Studies 346B History and Development of Jewish Thought: 1204 to the Present (3)
 Religious Studies 431 Jewish Mythology, Religion and Mysticism (3)
 Religious Studies 435 Old Testament Criticism (3)
 Religious Studies 476 The Holocaust: The Destruction of European Jewry 1933-1945 (3)
 Religious Studies 485 Major Religious Thinkers and Concepts* (3)
 American Studies 411 White Ethnic in America (3)
 Anthropology 345 Peoples of the Middle East and North Africa (3)
 Anthropology 346 Archeology of the Holy Land (3)
 Comparative Literature 312 The Bible as Literature (3)
 History 405 History of the Jews (3)
 History 415B Hellenistic Civilization (3)
 History 467 The Middle East in the 19th Century (3)
 History 468 Middle East in the 20th Century (3)

MINOR IN PEACE STUDIES

Students minoring in Peace Studies are required to take a total of 21 units beyond general education courses. These units are distributed as follows:

A. Required: 6 units

- Religious Studies 310 Intro to Peace Studies (3)
 Religious Studies 487 Seminar in Peace Studies (3)**

B. Required: 9 units selected from the following group

- American Studies 405 Images of Crime and Violence in America (3)
 Communications 481 Mass Communication and Conflict (3)
 History 407 War and Civilization (3)
 Political Science 453 International Conflict, War and Peace (3)
 Religious Studies 428 Great Religious Peacemakers (3)
 Sociology 385 Family Violence (3)
 Speech Communication 220 Interpersonal Conflict Management (3)

C. Electives: 6 units selected from two disciplines

- Afro-Ethnic Studies 335 History of Racism (3)
 American Studies 360 Cultural Radicalism in America (3)
 Chicano Studies 450 The Chicano and Contemporary Issues (3)
 Geography 367 Geopolitics (3)
 Management 441 Labor-Management Relations (3)
 Philosophy 310 Ethics (3)

*When content is Jewish

**May be taken only after 12 units in Peace Studies have been completed.

*When content is Christian.

Philosophy 365 Social Philosophy (3)
 Political Science 456 The National Security
 Establishment (3)
 Political Science 461 The United Nations and
 Other International Organizations (3)
 Poli Sci 491 International Internship** (3)
 Psychology 351 Social Psychology (3)
 Religious Studies 343 Religious Ethics (3)
 Sociology 372 Social Futures (3)
 Any 499 Independent Study (3)

Directed by instructor of student's choice

Religious Studies Courses

- 101 Fundamental Hebrew A (4)**
 (Same as Hebrew 101)
- 102 Fundamental Hebrew B (4)**
 (Same as Hebrew 102)
- 110 Comparative Study of The World's Great Religions (3)**
 (Same as Philosophy 110)
- 200 Introduction to Christianity (3)**
 The Christian scriptures and their background in the light of modern exegesis; the Synoptic Gospels, written creeds and liturgical formulae associated with the Orthodox, Roman and Protestant communions.
- 201 Origins of the New Testament (3)**
 The sources and content of the New Testament writings which reflect the life and beliefs of the Christians in the first century of the Common Era, including literary and historical criticism.
- 210 Introduction to Judaism (3)**
 The Jewish tradition—its scriptures, laws, customs, holidays and worldview in their historical setting.
- 246A Basic Hatha Yoga (2)**
 (Same as Physical Education 246A)
- 246B Intermediate Hatha Yoga (2)**
 (Same as Physical Education 246B)
- 250 The Religion of Islam (3)**
 The religion of Islam, its background and main teachings: the rise of Islam, the caliphate, Islamic theology, teachings, mysticism and philosophy.
- 270 Introduction to the Oriental Religions (3)**
 The main teachings of a major South Asian, Far Eastern, or 'Oriental' religion per semester. Such religions as Buddhism, Hinduism, Taoism, Shintoism, and Zoroastrianism will be discussed. May be repeated for credit with different subject matter.
- 300 Methodologies of Religious Studies (3)**
 Prerequisite: Religious Studies 110 or consent of instructor. Religious studies as an academic discipline; contributions from history, sociology, psychology, phenomenology and anthropology. Definition and function of religion, its varieties, its categories and the methodologies by which it is studied.
- 301 Sanskrit (3)**
 (Same as Linguistics 301)

**With coordinator's approval in view of actual content.

- 305 Anthropology of Religion (3)**
 (Same as Anthropology 305)
- 310 Introduction to Peace Studies (3)**
 A fundamental orientation towards the academic study of the peaceful resolution of conflict on the personal, interpersonal, and societal levels, with special attention to peacemaking as an ethical and religious value.
- 330 Hebrew Scriptural Studies (3)**
 Specific areas of Hebrew Scriptures such as major and minor prophets, Psalms, values of wisdom writers, books of the Old Testament. May be repeated for credit with different subject content.
- 331 New Testament Studies (3)**
 Specific areas of the New Testament such as the Synoptic Gospels, The Pauline Corpus, The Johannine Corpus, etc. May be repeated for credit with different subject matter.
- 335 Christianity and Judaism (3)**
 Differences and similarities between Christianity and Judaism. The age of transition from Judaism to Christianity; origins and destinies.
- 343 Religious Ethics (3)**
 A survey of the basic issues and themes in the relationship between religion and ethics.
- 345A History and Development of Christian Thought: The Beginning to 1274 (3)**
 Christian thought from apostolic times to the death of Thomas Aquinas; Old and New Rome, the Great Councils, the Middle Ages, and the marriage of faith and reason.
- 345B History and Development of Christian Thought: 1275 to the Present (3)**
 Christian thought from the death of Thomas Aquinas to the present; the cultural and philosophical backgrounds of the successive ages of scholasticism, the renaissance, baroque, reason and revolution, and the modern world.
- 346A History and Development of Jewish Thought: Biblical Origins to Maimonides (3)**
 Jewish thought from biblical times to the death of Moses Maimonides (1204); Hebrew scriptures, Roman era, Talmud, and Spanish Jewry.
- 346B History and Development of Jewish Thought: 1204 to the Present (3)**
 Jewish thought from the death of Maimonides to the present; expulsions and persecutions, mysticism, emancipation, modern anti-Semitism, and Zionism.
- 347A History and Development of Hinduism to 1200 (3)**
 Prerequisite: Religious Studies 110 or 270 or consent of instructor. Hindu thought from the Veda to 1200. Subjects will include the Upanisads, a survey of the orthodox ritual and legal traditions, the six major philosophical traditions, and the beginnings of sectarianism.
- 347B History and Development of Hinduism from 1200 (3)**
 Prerequisite: Religious Studies 110 or 270 or consent of instructor. Hindu thought from 1200 to the present. Subjects will include the sects and philosophers in the devotional tradition, nineteenth century reformational religion, religious reformers, and the contributions of the Theosophical Society and M.K. Gandhi.
- 350 Major Christian Traditions (3)**
 Catholicism, Protestantism, Eastern Christianity, or Post-Reformation Communities; historical development and self-

understanding, liturgy, creeds, moral norms, canonical laws and outstanding figures. May be repeated for credit with different content.

370 Modern Non-traditional Religious Movements in America (3)

Beliefs, history, ritual and organizational make-up of non-traditional modern religions in America, such as Scientology, the Unification Church, Hare Krishna (ISKCON) and Rajneeshism as presented by guest speakers. Discussion of "cult," "sect" and the occult will comprise portion of course.

376 Dimensions of Religion (3)

The great themes of religious thought viewed objectively and subjectively in history and in the present day. Seminar and discussion presentation.

390 Religion and the Mass Media (3)

Prerequisite: American Studies 201 or Communication 233 or History 180 or Religious Studies 110 or consent of instructor. Religion reporting in the secular media; the religious press in America; the influence of the media, both secular and religious, on the shaping of society's values; ethical dilemmas faced by reporters.

405 History of the Jews (3)

(Same as History 405)

421A History of the Christian Church to 1025 (3)

(Same as History 421A)

421B History of the Christian Church From 1025 to the Present (3)

(Same as History 421B)

425B The Reformation (3)

(Same as History 425B)

428 Great Religious Peacemakers (3)

Prerequisites: Religious Studies 110, 310, or 345B, or consent of instructor. Biographies and writings of modern

peacemakers whose vision has been inspired by moral teachings of their religious traditions. Analysis of their concrete contribution to non-violent resolution of conflict.

437 American Indian Religions and Philosophy (3)

(Same as Afro-Ethnic Studies 437)

458 Sociology of Religious Behavior (3)

(Same as Sociology 458)

475 Anxiety, Guilt and Freedom (3)

The distinction between psychiatry and religious methods of understanding basic human emotions: "authority," "God," "faith," "forgiveness," "sin," "error," "repentance," "sex" and "absolution."

476 The Holocaust: The Destruction of European Jewry 1933-1945 (3)

The ordeal of European Jewry; the beginnings and the end of an organized policy of genocide; impressions of eye witnesses; thoughts about the holocaust after a generation.

483 American Religious History (3)

(Same as History 483)

485 Major Religious Thinkers and Concepts (3)

Prerequisite: approval of undergraduate adviser. Religious thinkers and concepts dealing with Western, Eastern and non-traditional religious ideas from ancient to modern times. Fulfills university upper division baccalaureate writing requirement. May be repeated with different content.

487 Seminar in Peace Studies: (3)

Prerequisite: 12 units of Peace Studies courses. Seminar in Peace Studies. Theoretical and practical approaches to personal, inter-personal and societal peacemaking. Integrates and builds upon previous classes in peace studies.

499 Independent Study (1-3)

Supervised research projects in religious studies to be taken with consent of instructor and the department chair. May be repeated for credit.

Russian and East European Area Studies Program

Program Coordinator: Robert Feldman (History)
Program Office: McCarthy Hall 103

Program Offered

Bachelor of Arts in Russian & East European Area Studies

Faculty

Ellen Cochrum (Foreign Languages and Literature), David Depew (Philosophy), Robert Feldman (History), Charles Frazee (History), Gary Guertner (Political Science), Ronald Helin (Geography), Jane Hipolito (English), Karl Kahrs (Political Science), R. Dean Mills (Communications), Joyce Pickersgill (Economics), Robert Rayfield (Communications), Otto Sadowszky (Anthropology), Frank Verges (Philosophy), Bruce Wright (Political Science), Michael Yessis (Physical Education)

INTRODUCTION

The Russian and East European Area Studies program is an interdisciplinary program designed for students whose interests and career objectives are in government service, communication, international business or education. The program provides students already majoring in an existing discipline or department (i.e., history, business, biology, etc.) the opportunity to have a *second major*. In addition, the program fulfills the various cultural objectives common to any liberal arts program.

BACHELOR OF ARTS IN RUSSIAN AND EAST EUROPEAN AREA STUDIES

To qualify for this major, a student must complete (1) 16 units of Russian language or their equivalent, (2) 20 units of upper-division Russian area courses from at least four of the following fields: anthropology, comparative literature, economics, geography, philosophy, political science, history, foreign language, (3) 15 units of upper-division course work in a related discipline to be determined in consultation with a Russian area counselor. Students are encouraged to have these units apply toward a major in a traditional discipline.

The basic lower-division courses also may be used to meet general educational requirements.

Russian and East European Area Studies Courses

All courses within the Russian and East European area studies program originate in other departments within the university. Students should refer to the department originating the course for description.

Communications

- 431 Mass Communications in Communist Systems (3)

Comparative Literature

- 373 Masters of Russian Literature (3)
- 374 Soviet Literature (3)

Economics

- 331 The Soviet Economy (3)

Foreign Languages

- FL-R 101 Fundamental Russian-A (5)
- FL-R 102 Fundamental Russian-B (5)
- FL-R 203 Intermediate Russian-A (5)
- FL-R 204 Intermediate Russian-B (5)

Geography

- 338 Geography of the Soviet Union (3)

History

- 419 The Byzantine Empire (3)
- 434A Russia to 1890 (3)
- 434B Russian Revolution and the Soviet Regime (3)
- 437 East Europe (3)
- 490 Senior Research Seminar (3)
- (When topic is Russian Revolution or Polish History)

Philosophy

- 382 Marx and Marxism (3)

Political Science

- 430 Government & Politics (of the U.S.S.R.) (3)
- 431 Government & Politics (of East Europe) (3)
- 443 Theory and Philosophy of Marxism (3)
- 452 Foreign Policy of the U.S.S.R. (3)

Social Sciences

Program Coordinator: Sheldon Maram (History)
Program Office: McCarthy Hall 103

Program Offered

Master of Arts in Social Sciences

Adviser

Sheldon Maram

Advisory Board

The Advisory Board consists of one faculty representative from each participating department or program, two student representatives, and the dean of graduate studies or a representative (ex-officio). The participating departments are: Sociology, History, Geography, Afro-Ethnic Studies, Political Science, American Studies, Chicano Studies, Criminal Justice, Anthropology, Psychology, Philosophy and Economics.

INTRODUCTION

Social Sciences is an interdisciplinary program providing for individualized programs of graduate study which emphasize the examination of human behavior and its relations to social institutions. These programs have the common purpose of exposing students to diverse methodologies, establishing the relationship between disciplines, and providing the student with the opportunity to explore a selected area from a variety of intellectual perspectives.

The social sciences include the following related fields: Afro-Ethnic studies, American studies, anthropology, Chicano studies, criminal justice, economics, geography, history, philosophy, political science, psychology and sociology.

This degree is designed to provide interdisciplinary insights and tools for those interested in (1) pursuing careers in government and business; (2) elementary, secondary, or community college teaching in the area of social studies or any of the social sciences; (3) a graduate program to complement the undergraduate degree in social science, liberal studies, or any single department major within the social sciences; or (4) a custom-tailored program of advanced study in the liberal arts.

ADMISSION TO THE PROGRAM

A student may be admitted to the program in conditionally classified graduate standing with a baccalaureate from an accredited institution and a minimum grade-point average of 2.5 in the last 60 semester units attempted. Classified standing requires an undergraduate major or its equivalent in one of the social sciences, a GPA of 3.0 in upper division social sciences courses, and substantial work

in the social science fields selected for study.* The graduate adviser will determine qualifications in these areas and may require 3-12 units of course work beyond the study plan to compensate for deficiencies. A study plan must be developed and approved for admission to classified graduate standing.

MASTER OF ARTS DEGREE IN SOCIAL SCIENCES

Of the 30 units of adviser-approved courses on the study plan, at least 18 must be in appropriate work at the 500-level. Course work includes a required social sciences core (6 units), a multidisciplinary core taken in at least two social science fields (18-21 units), and a project or thesis (3-6 units). Courses in the multidisciplinary core are selected in consultation with the graduate program adviser and faculty in their areas of interest and should correspond to the focus in the thesis or project. At least two fields should be represented in the 500-level courses. The study plan would be either:

	Plan I Units	Plan II Units
1. Social Sciences core (6)		
500 Social Science Theories (3)	3	3
501 Social Science Methods (3)	3	3
2. Multidisciplinary core (18-21)		
Minimum 500-level units	9	9
Maximum upper-division units	9	12
3. Project or Thesis (3-6)		
597 Project or 598 Thesis	6	3
Every student will prepare a project or thesis on a topic approved by the graduate program adviser and the student's committee. Both the project and the thesis must reflect the student's interdisciplinary effort.		
Total	30	30

*The prerequisite for "substantial work" will vary among departments and according to the specific courses within some departments. Lack of substantial work in one or more fields will not ordinarily bar a student from admission but will result in one or more additional courses being required before the student may be classified.

Competency in a foreign language or in specific techniques (e.g., film-making) may be required in addition to the study plan in cases where the student's committee and the graduate program adviser consider such competencies necessary for the particular focus. Such requirements will be stated no later than the time the student is advanced to classified standing.

This degree program relates to various career options in the social sciences. Work experience in these careers may be gained under an internship course in one of the social sciences, and the project may be tailored to a career option. For further information, consult the graduate program adviser.

Social Sciences Courses

385 Philosophy of the Social Sciences (3)
(Same as Philosophy 385)

500 Social Science Theories (3)

A philosophical and theoretical basis for graduate work in the areas of social science. The interrelationships among the various social sciences as they relate to social, physical and political environments.

501 Social Science Methods (3)

Analytical comparison of the historical, humanistic and scientific methodologies in the social sciences. Contemporary trends in the social sciences methods.

597 Project (3-6)

Individual direction by committee of faculty in research and preparation of either (a) a formal proposal for an innovative social science-based program including academic justification and standards of evaluation, or (b) innovative work in a medium other than the written essay.

598 Thesis (3-6)

Individual direction by committee of faculty in research and preparation of a written research essay which will reflect an interdisciplinary program of study.

599 Independent Graduate Research (3)

Open to graduate students in social science with the consent of program adviser or coordinator. May be repeated for credit.

- 430 Government & Politics (of the U.S.S.R.) (3)
- 431 Government & Politics (of East Europe) (3)
- 443 Theory and Philosophy of Marxism (3)
- 452 Foreign Policy of the U.S.S.R. (3)

Department of Sociology

Department Chair: Rae R. Newton
Department Office: Humanities 730M

Programs Offered

Bachelor of Arts in Sociology

Minor in Sociology

Master of Arts in Sociology

Faculty

Takenori Aso, John Bedell, Tony Bell, Dennis Berg, Jonathan Brower, Carol Copp, Helaine Feingold, Rosalie Gilford, Ronald Hughes, Hilla Israely, Perry Jacobson, Pat Lackey, Michael Mend, G. Nanjundappa, Rae Newton, Myron Orleans, Bartolemeo Palisi, Houshang Poorkaj, Lorraine Prinsky, Gerald Rosen, J. Rex Smith, C. Michael Stuart, Clarence Tygart, Ernest Works, Troy Zimmer

Advisers

Undergraduate: Tony Bell and Hilla Israely

Graduate: Perry Jacobson

INTRODUCTION

Sociology is the study of social life: the nature and structure of groups, institutions and societies. Sociology attempts to identify and understand the social functions and processes of human behavior. Sociology's subject matter ranges from the intimate family to the hostile mob, from crime to religion, from divisions of race and social class to the shared beliefs of a common culture, from the sociology of work to the sociology of sport, from the study of conformity to the study of deviance, from childhood to old age and death.

The Sociology major is designed to provide undergraduate preparation leading to careers in social work, politics, law, public administration, urban and environmental planning, public relations, personnel, criminal justice, counseling and other service professions. The Bachelor of Arts in Sociology will also prepare a student for advanced studies in several areas including sociology, social welfare, environmental studies, education, public health and urban planning.

Field Experience

The major in Sociology offers an internship to provide supervised field experience. This permits the student to apply his relevant sociological knowledge in practical settings. The course may earn from one to three units. An independent study is also offered for this purpose. It allows a student to expand upon his individual interests within the field of Sociology.

the experience. No more than nine units of any combination of internships and independent studies may be applied toward the thirty-six units required for the major. Senior seminars will be offered each semester on topics of current sociological relevance. The seminar is open to students of all disciplines with senior classification who have had upper-division course work in the area. The topics will vary from semester to semester depending upon the speciality and training of the instructor. This course may be repeated for credit.

CREDENTIAL INFORMATION

Requirements for Sociology majors with a Multiple Subject Credential objective are available in the Sociology Department office.

BACHELOR OF ARTS IN SOCIOLOGY

Students majoring in sociology are required to complete a minimum of 36 units of course work in sociology. Included within the 36 units are 12 units of core courses required of all majors and 24 units of adviser-approved electives tailored to each student's career objectives. In addition to the required minimum of 36 units, students must take Sociology 308 or an adviser-approved writing course. At least 27 units must be upper division. A total of nine adviser-approved units may be transferred from a community college.

Required courses (12 units)

Sociology 101 Introduction to Sociology (3)
Sociology 301 Theories of Social Behavior (3)
Sociology 302 Social Research Methods (3)
Sociology 303 Statistics for the Social Sciences (3)

Writing Requirement (3 units)

Sociology 308 - Writing for Sociology Students (3)
English 301 - Advanced College Writing (3)
English 360 - Scientific & Technical Report Writing (3)
English 365 - Legal Writing (3) or an adviser approved upper division writing course.

Electives (24 units): Each student is to select a minimum of 24 units of elective course work in sociology consistent with his/her career objectives.

All courses counting toward the major must be taken for a letter grade. Sociology 308 or an alternative writing course must be passed with a grade of C or better.

MINOR IN SOCIOLOGY

Required courses (9 units)

Sociology 101 Introduction to Sociology (3)
Sociology 301 Theories of Social Behavior (3)
Sociology 302 Social Research Methods (3)

Elective courses (12 units): 12 selected units of upper-division course work in sociology.

MASTER OF ARTS IN SOCIOLOGY

The Sociology Department accepts graduate students in the fall and spring semesters of each academic year. The program for this degree provides advanced study in general sociology. It offers an op-

portunity to broaden one's knowledge of society, to strengthen skills of sociological analysis and to do research in depth in an area of particular interest. It may be used as preparation for study toward the doctorate in sociology, for community college teaching, participation in research or for a variety of positions in business and industry, corrections, the community or government.

The program is composed of a 15-unit core sequence which all students must complete and 15 units of electives to be chosen by the graduate student in consultation with the graduate adviser. It is designed to facilitate close contact between students and faculty, to encourage students to accept a role in the selection of course offerings, and to participate in all areas of departmental decision making.

Prerequisites

Students must meet the university requirements for admission to graduate standing. Please see the section of this catalog on admission of graduate students.

In order to be accepted as a conditionally classified sociology major, students must have a GPA of 2.75 or better in the most recent 60 units of college work and a GPA of 3.0 (B) or better for all work in sociology. A minimum of 18 upper-division units in sociology is required, including the following courses or their equivalents:

Sociology 301 Theories of Social Behavior (3)
Sociology 302 Social Research Methods (3)
Sociology 303 Statistics for the Social Sciences (3)

Courses in methods, statistics and theory must have been completed within the last five years prior to application.

Students will be accepted as conditionally classified sociology majors with either course or GPA deficiencies. Deficiencies must be corrected within one year of admission to the program.

Students will be classified upon the fulfillment of the above prerequisites, and after an approved study plan has been developed, in consultation with the Graduate Committee.

Study Plan

The study plan for the degree must be approved by the student's adviser and must include the following:

Units

1. Core Course Sequence 15
 - A. Sociology 502A Research Process (3)
 - B. Sociology 501 Seminar: Topics in Societal Structure and Process (3)
 - C. Sociology 502B Research Process (3)
 - D. Sociology 581 Advanced Theories of Social Behavior (3)
 - E. Sociology 598 Thesis (3)
(Sociology 502A and 581 are designed to be taken during first semester of graduate studies)
2. Electives 15

Electives to be chosen from the following categories consistent with each student's goals, subject to approval by the graduate adviser and limited by the maximum number of units set for each category.

A. Graduate sociology seminars
(500-level courses) maximum of 15 units

B. Upper division sociology courses
(400-level courses) maximum of 6 units

C. Sociology 596, Community College Symposium
(3) or

Sociology 599, Independent Graduate Research
(1-3) maximum of 6 units

For further information, consult the graduate program adviser.

Sociology Courses

101 Introduction to Sociology (3)

The basic concepts of sociology: includes social interaction, culture, personality, social processes, population, social class, the community, social institutions and sociocultural change.

102 Social Problems (3)

The extent, causes and consequences of a number of social problems, 20th-century America: the changing society.

133 Introduction to Gerontology (3)

Multidisciplinary overview of the characteristics, strengths and problems of older persons; the development of gerontology as a solution to problems of aging; services to older adults; working with older persons in various settings; education for careers in gerontology.

151 An Introduction to Family Relationships (3)

An introductory practical guide to family living. Topics include dating, courtship, children, financial problems, grandparents, in-laws, problems associated with careers of parents, effectively coping with family interactions.

289 Computer Methods for the Social Sciences (3)

Digital computer systems and programming, student-written programs in BASIC or BASIC-PLUS; the computer's impact on society and social sciences; simulation and model building; information networks, artificial intelligence and other topics. (Same as Psychology 289)

300 Introduction to Social Welfare (3)

Prerequisite: Sociology 101 or consent of instructor. The history, philosophy and development of thought in social welfare; the social work methods (casework, group work and community organization); social work as a career objective; social work practice; availability of employment and qualifications necessary.

301 Theories of Social Behavior (3)

Prerequisite: Sociology 101 or consent of instructor. The main schools of sociological thought, both European and American. Systems of theory, methodology of theorists, cultural change and social institutions.

302 Social Research Methods (3)

Prerequisite: Sociology 101 or consent of instructor. Topics include: research design, methods of gathering data, the

role of theory in research, sampling methods and problems, data processing and analysis.

303 Statistics for the Social Sciences (3)

Prerequisites: Sociology 101 and Mathematics 110 or equivalent or consent of instructor. The techniques for the elementary statistical analysis of social data. (2 hours lecture, 2 hours activity)

305 Techniques of Social Welfare (3)

Prerequisite: Sociology 101 and 300 or consent of instructor. Methods and theories underlying social work practice. History, values and philosophy of the profession. Methods and skills. Casework issues and trends in social work practice.

308 Writing for Sociology Students (3)

Prerequisite: Sociology 101 or consent of instructor. Composition, sources of information and sociological writing for different audiences. Satisfies the classroom portion of the upper-division writing requirement for sociology majors.

309 Computers in Sociology (3)

Prerequisite: Sociology 101 or consent of instructor. Introduction to computer applications in Sociology. Training in use of CSUF mainframe computers, software and microcomputers. Topics include: survey analysis with SPSS; constructing and editing data files and word processing. (2 hours discussion; 2 hours lab)

333 Sociology of Aging (3)

Prerequisite: Sociology 101 or consent of instructor. Analysis of population age structure; theories of aging; aging in family, economic, political, religious, educational, leisure/esthetic institutions. Aging and ethnicity. Social policy and the future of aging.

341 Social Interaction (3)

Prerequisite: Sociology 101 or consent of instructor. The social and sociopsychological dimensions of group behavior and the socialization of the individual. Social interaction and its impact on the individual and personality formation.

345 Sociology of Communication (3)

Prerequisite: Sociology 101 or consent of instructor. The social processes involved in communicating with symbols—verbal, visual and "body-language"—in interpersonal settings and the mass media.

348 Collective Behavior (3)

Prerequisite: Sociology 101 or consent of instructor. Characteristics of crowds, mobs, publics. Analysis of social movements and revolutions, their relation to social unrest and their role in developing and changing social organization.

350 Social Relationships and Emotions (3)

Prerequisite: Sociology 101 or consent of instructor. Consideration of social relationships emphasizing emotional bonds as the primary integrating force, including interactions between emotions and relationships.

360 Human Ecology: Problems and Solutions (3)

Prerequisite: Sociology 101 or consent of instructor. Interaction between human populations and their environments in the context of functional interdependence involving population, environment, organization and technology. Examination of causes, consequences and solutions to modern day major environmental problems.

- 361 Population Problems (3)**
Prerequisite: Sociology 101 or consent of instructor. Population composition, growth and movement. Social factors affecting birth rates, death rates and migration. The population of the United States and selected areas of the world.
- 371 Urban Sociology (3)**
Prerequisite: Sociology 101 or consent of instructor. The population and ecology, patterns of growth, institutions, characteristic social interaction, values and problems of the urban community.
- 372 Social Futures (3)**
Prerequisite: Sociology 101 or consent of instructor. The tools for projecting future probabilities and possibilities. The broad social and moral implications of scientific and technological advances. Procedures and consequences of social design.
- 381 Sociology of Human Sexuality (3)**
Prerequisite: Sociology 101 or consent of instructor. Study of the sociological aspects of human sexuality, socio-historical and comparative perspectives; relationships of sexual interaction to life cycle, gender, race, class and power.
- 385 Family Violence (3)**
Prerequisite: Sociology 101 or consent of instructor. For professions dealing with victims and/or perpetrators of family violence. Explores causes, intervention and prevention of all types of abuse: child, sibling, spouse and parent. Examines theories, research findings and practical field application.
- 400 Sociological Internship (1-3)**
Prerequisite: Sociology 101 or consent of instructor. Supervised field experience permitting application of relevant sociological material in practical settings.
- 407 Women in Contemporary Society (3)**
Prerequisite: Sociology 101 or consent of instructor. Women in American society. Sex role socialization, sexism in institutions, labor force participation, female health and sexuality.
- 408 Sexual Abuse in American Society (3)**
Prerequisite: Sociology 101, 466 or consent of instructor. Sociological examination of sexual victimization and their consequences. Patterns of forcible rape, sexual abuse of children, effects of sexual abuse on victims and abusers, and responses of various social groups to sexual victimization are presented.
- 411 Criminology (3)**
Prerequisite: Sociology 101 or consent of instructor. The extent, causes and control of criminal behavior. The criminal law, causal factors and theories, correctional institutions, probation and parole, and preventive efforts.
- 413 Juvenile Delinquency (3)**
Prerequisite: Sociology 101 or consent of instructor. Juvenile delinquency as a social problem. Sociological study of the causes of delinquent behavior, and programs of control, treatment and prevention.
- 414 Sociology of Public Health (3)**
Prerequisite: Sociology 101 or consent of instructor. The social and organizational context of health care in the American community: social forces, processes and relationships which influence or determine the nature of health service.
- 415 Sociology of Corrections (3)**
Prerequisite: Sociology 101 or Sociology 411 or 413 or consent of instructor. Current problems and programs in probation, parole and correctional institutions. For students planning careers in corrections.
- 416 Sociology of Alcoholism (4)**
Prerequisite: Sociology 101 or consent of instructor. Sociological analysis of alcoholism. The socio-emotional causes and consequences of this type of drug addiction. (3 hours seminar; 2 hours activity)
- 431 Minority Group Relations (3)**
Prerequisite: Sociology 101 or consent of instructor. Examines the development and current conditions of minority/majority relations through study of social, political and economic causes and consequences of prejudice and discrimination. Evolutionary and revolutionary movements for change will be studied.
- 433 Aging and Social Services (3)**
Prerequisite: Sociology 333 or consent of instructor. Sociological analysis of social problems of aging with special emphasis on strategies of intervention and barriers to service utilization. Critical examination of community service delivery systems. Review of career opportunities and qualifications required.
- 436 Social Stratification (3)**
Prerequisite: Sociology 101 or consent of instructor. Social class structures and their functions. Styles of life; determinants of class status; vertical social mobility; change in class systems.
- 446 Aging and Sexuality (3)**
Prerequisite: Sociology 101 or consent of instructor. Impact of bio-psycho-social dynamics of aging on sexuality and affectual dimensions of marriage in later years; explicit forms and process of sexual expression in old age; singlehood, widowhood, homosexuality; sexuality in institutionalized elderly.
- 450 Sociology of Sex Roles (3)**
Prerequisite: Sociology 101 or consent of instructor. The effect of traditional and nontraditional sexual stereotypes on attitudes and behavior within the family, the educational system, the economic system and the legal system.
- 451 Sociology of the Family (3)**
Prerequisite: Sociology 101 or consent of instructor. The family as a social institution. Historical and cross-cultural perspectives; social change affecting marriage and the family; analysis of American courtship and marriage patterns; the psychodynamics of family life.
- 452 The Sociology of Education (3)**
Prerequisite: Sociology 101 or consent of instructor. Education as a social process and a social institution. The relationship between education as a social process and a social institution, between education and sociology, the social functions of education. The socialization process, the school and the community, and the school as a social institution.
- 453 Child in American Society (3)**
Prerequisites: Sociology 101 or consent of instructor. The child's role in America peer group participation, sibling rivalry and sibling order. The societal attitudes toward the child's place in society.

- 455 Medical Sociology (3)**
Prerequisite: Sociology 101 or consent of instructor and upper division standing. A sociological perspective for interpreting medicine and medical behavior.
- 456 Mental Illness (3)**
Prerequisite: Sociology 101 or consent of instructor. Sociological analysis of the process of diagnosis, recognition and treatment of mental illness.
- 458 Sociology of Religious Behavior (3)**
Prerequisite: Sociology 101 or consent of instructor. Religious behavior examined by social science theories. Religious rituals/beliefs to cope with anxiety and powerlessness before natural forces and social structures and processes. Religion's contributions to individual identity, societal order and change. (Same as Religious Studies 458)
- 459 The Sociology of Marital Dissolution (3)**
Prerequisite: Sociology 101 or consent of instructor. The social-psychological causes and consequences of voluntary marital dissolution (separation, divorce). Topics include: the erosion of attachment, personal identity changes, changing and new relationships with others, starting over, dating again, sexuality changes, loneliness, anxieties.
- 460 Sociology of Death and Dying (3)**
Prerequisite: Sociology 101 or consent of instructor. Dying as a social process; functions of bereavement behavior; the grief process; fear of death and dying; death related rituals, demographic aspects of mortality; American death acceptance-denial controversy.
- 465 Law and Society (3)**
Prerequisite: Sociology 101 or consent of instructor. The law and lawyers in the context of human society. Sociological analysis of the law and society; law as formal social control, social change, legal profession.
- 466 Deviant Behavior (3)**
Prerequisite: Sociology 101 or consent of instructor. Topics include; drug addiction, sexual deviance, delinquency, alcoholism, mental illness and life style.
- 467 Sociology of Sport (3)**
Prerequisite: Sociology 101 or consent of instructor. The nature, position, functions and growing importance of sport in contemporary industrial society. The relationship between structure, variety and extent of sport activity and other institutional sectors in society.
- 470 Sociology of Occupations (3)**
Prerequisite: Sociology 101 or consent of instructor. Causes of unemployment; employment prospects; professions; labor unions and/or employee associations; and effects of work on the physical and mental health of workers.
- 473 Formal Organizations (3)**
Prerequisite: Sociology 101 or consent of instructor. Schools, hospitals, industries, prisons and government industries. Self-actualization and alienation, human relations, communication, leadership, conflicts within and between organizations and impact on democratic institutions and social change.
- 477 Social Behavior (3)**
Prerequisite: Sociology 101 or consent of instructor. The basic structures of various levels of social groups will be studied. The common and unique qualities of friendship, families, voluntary associations, complex organizations, communities and societies will be compared.
- 484 Using Computers in Sociology (3)**
Prerequisites: Sociology 101, 302, 303, (331X) or consent of instructor. "Canned" statistical programs in data analysis. Research design and data preparation relevant to computer analysis.
- 495 Senior Seminar (3)**
Prerequisite: Sociology 101 senior classification. Open to students who have had the upper division coursework in the area of the seminar. The seminar will depend upon the specialty and training of instructor. May be repeated for credit. Consult current class schedule for topics.
- 499 Independent Study (1-3)**
Prerequisites: Sociology 101, at least 12 units of sociology and consent of instructor. An individual research project, either library or field. The student must enroll with an instructor whose recognized interests are in the area of the planned independent study. Conferences with the instructor as necessary and the work culminated in one or more papers. May be repeated for credit.
- 501 Seminar: Topics in Societal Structure and Process (3)**
Prerequisite: consent of instructor. Analysis of a specialization within the study of society such as: socialization and personality; deviance; social change; institutional structure and process. May be repeated for credit.
- 502A The Research Process (3)**
Requires the completion of a research project including such elements as theory construction, hypotheses formation, sampling, survey construction, data collection and data analysis.
- 502B The Research Process (3)**
Prerequisites: Sociology 502A. Problems of social research. Causal inferences, value bias and measurement, the construction of scales.
- 581 Advanced Theories of Social Behavior (3)**
Prerequisites: Sociology 301 or equivalent or consent of instructor. The basic elements and key problems in constructing and evaluating sociological theories.
- 596 Community College Symposium (3-6)**
Prerequisite: consent of adviser. Introductory sociology, social problems and marriage and the family; teaching preparation. Includes an oral exam.
- 597 Project: Agency Placement (3-6)**
Prerequisite: consent of adviser. Twenty hours per week for one semester or 10 hours per week for two semesters. Choice limited by the availability of positions which meet the level of supervision and training for which credit may be given. Includes an oral exam conducted by a master's committee.
- 598 Thesis (3)**
Prerequisites: acceptance as a candidate for the Master of Arts in Sociology, and approval of the topic. Individual research under supervision, reported in a thesis, and defended successfully in an oral examination conducted by a faculty committee.
- 599 Independent Graduate Research (1-3)**
Prerequisite: consent of graduate adviser and instructor. Individual research on either a library or empirical project, with conferences with the instructor as necessary, culminating in one or more papers. May be repeated for credit.

Department of Speech Communication

Department Chair: Joyce Flocken
Department Office: Education Classroom 199
Speech & Hearing Clinic: Education Classroom 190

Programs Offered

Bachelor of Arts in Communicative Disorders

Master of Arts in Communicative Disorders

Clinical Rehabilitative Services Credential
(CRSC) with Special Class Authorization (SCA)

Bachelor of Arts in Speech Communication

Minor in Speech Communication

Master of Arts in Speech Communication

Faculty

Ralph Beckett, Daniel Canary, Daniel Crary,
Michael Davis, Robert Emry, George Enell,
Joyce Flocken, Robert Gass, Kaye Good,
Donald Kaplan, Lucy Keele, Kurt Kitselman,
Edith Li, Emmett Long, Max Nelson,
Norman Page, Glyndon Riley, Arden Thorum,
Richard Wiseman.

Advisers

Undergraduate: Norman Page

Graduate: Daniel Canary

INTRODUCTION

Majors in the Department of Speech Communication study human communication as part of a liberal arts and social sciences education, and in preparation for a variety of career choices. Students with communication background studies and training are: prepared to understand the roles communication plays in human interaction; skilled in facilitating and analyzing individual, small group, and public communication processes; experienced in planning and managing programs that improve the quality of communication; sensitized to cultural and pathological differences that influence communication effectiveness; and equipped to apply scientific methods and technical procedures to the study of communication improvement and competencies.

The Department of Speech Communication offers two undergraduate and two graduate degree programs in communicative disorders and in speech communication.

Instruction in Communicative Disorders has four specific goals: to discover relationships among human communication and other human behaviors; to provide students with understanding of the communication process so they might evaluate normal and ab-

normal deviations; to provide theoretical understanding and functional skills which enable the clinician-in-training to diagnose and treat disorders of speech, voice, language and hearing; and to develop graduate professional practitioners of speech pathology capable of serving in clinics, community centers, hospitals, private practice and school settings.

Instruction in Speech Communication has four specific goals: to discover relationships among human communication and other human behaviors; to provide students with understanding of the communication process enabling them to evaluate and affect their communication environments; to improve the quality of human communication; and to facilitate intellectual, social and political maturity by applying principles of communication. Students are prepared for careers as communication specialists in business, public relations, education and other professions requiring a high level of communication competencies such as the law and the ministry, and for doctoral level studies in speech communication.

PROFESSIONAL INFORMATION

Accreditation:

The Communicative Disorders program is fully accredited by the American Speech-Language-Hearing Association (ASHA). Graduate study in this program leads to certification with ASHA.

Licensure:

Graduate study in Communicative Disorders leads to licensure with the California State Board of Medical Quality Assurance.

Credential Information

The Speech Communication Department offers course work leading to a waiver in the area of Language Arts for the Ryan Single Subject (Secondary) Teaching Credential. Interested students should seek advisement from the department single subject waiver adviser.

As an addition to the degree in Communicative Disorders, the Speech Communication Department offers credential programs in Clinical Rehabilitative Services and in Clinical Rehabilitative Services with Special Class Authorization approved by the Commission for Teacher Credentialing (CTC).

Awards in the Department of Speech Communication

The following awards were established by family, friends and colleagues of the designees in memory of their commitment and contributions to students engaged in the study of human communication.

These awards provide recognition and/or financial assistance to outstanding students majoring in Speech Communication or Communicative Disorders.

- The Seth A. Fessenden Award
- The Herbert W. Booth Award
- The Herbert W. Booth Outstanding Senior Award
- The Philip J. Schreiner Award
- The Lee E. Granell Award
- The Wayne Brockriede Award

Graduate Assistantships and Fellowships

The following appointments are awarded to outstanding graduate students in the form of competitively selected assistantships and lectureships:

- Clinical Graduate Assistants
- Graduate Assistants in Forensics
- Graduate Assistants in Research
- Lecturers in Speech Communication

BACHELOR OF ARTS IN COMMUNICATIVE DISORDERS

Basic requirements: 42 units minimum

Lower Division Requirements (3 units)

- Speech Comm 102 Public Speaking (3)

Upper Division Requirements (33 units)

- Speech Comm 300 Research in Speech Communication (3)
- Speech Comm 324 Small Group Communication (3) *or*
- Speech Comm 332 Processes of Social Influence (3) *or*
- Speech Comm 334 Persuasive Speaking (3)
- Speech Comm 341 Introduction to Phonetics (3)
- Speech Comm 342 Introduction to Communicative Disorders (3)
- Psychology 306 Physiological Psychology (3)
- Speech Comm 344 Speech and Hearing Science (3)
- Speech Comm 441 Dysarticulation and Stuttering (3)
- Speech Comm 444 Childhood Language Disorders and Adult Aphasia (3)
- Speech Comm 451 Diagnostic Methods in Communicative Disorders (3)
- Speech Comm 452 Therapeutic Procedures in Communicative Disorders (3)
- Speech Comm 463 Audiology (3)

Electives: additional units from among the following courses: (6 units)

- Speech Comm 302 Introduction to Manual Communication (3)
- Speech Comm 312 Intermediate Sign Language (3)
- Speech Comm 403 Speech/Language Development (3)
- Speech Comm 443 Voice Disorders & Cleft Palate (3)
- Speech Comm 453 The Speech/Language and Hearing Clinician as a Counselor (3)
- Speech Comm 464 Audiometry (3)
- Speech Comm 465 Intro to Aural Rehabilitation (3)

BACHELOR OF ARTS IN SPEECH COMMUNICATION

Basic Requirements: 42 units minimum

Lower-Division Requirements: (9 units)

- Speech Comm 102 Public Speaking (3)
- Speech Comm 200 Human Communication (3)

Speech Comm 235 Essentials of
Argumentation and Debate (3)

Upper-Division Requirements: (24 units)

Core Courses: (9 units)

Speech Comm 300 Introduction of Research
in Speech Communication (3)

Speech Comm 308 Quantitative Research
Methods (3)

Speech Comm 420 Communication Theory
(3)

Concentration Courses: (15 units of adviser approved coursework reflecting a thematic focus in advocacy, interpersonal communication, intercultural communication, organizational communication, or rhetoric taken from among the following courses):

Speech Comm 138 Forensics (2)

Speech Comm 220 Interpersonal Conflict
Management (3)

Speech Comm 320 Intercultural
Communication (3)

Speech Comm 324 Small Group
Communication (3)

Speech Comm 325 Interviewing: Principles
and Practices (3)

Speech Comm 332 Process of Social
Influence (3)

Speech Comm 333 Communication in
Business and Industry (3)

Speech Comm 334 Persuasive Speaking (3)

Speech Comm 335 Advanced Argumentation
(3)

Speech Comm 338 Intercollegiate Forensics
(2)

Speech Comm 415 Interpersonal
Communication Theory (3)

Speech Comm 425 Organizational
Communication Dynamics (3)

Speech Comm 430 Classical Rhetorical
Theory (3)

Speech Comm 432 Contemporary Rhetorical
Theory (3)

Speech Comm 437 Internship: Speech
Communication (3)

Speech Comm 438 Principles of Rhetorical
Criticism (3)

Electives: (9 units of adviser approved coursework in Speech Communication)

MINOR IN SPEECH COMMUNICATION

Basic Requirements: 21 units of adviser-approved courses in speech communication.

MASTER OF ARTS IN COMMUNICATIVE DISORDERS AND IN SPEECH COMMUNICATION

The Master of Arts in Speech Communication is designed for students who have exceptional interest in and aptitude for study in the area of communication theory and process. The objectives of the degree include the following: to improve the student's academic and professional competence, to prepare the student for advanced graduate work toward the doctoral degree, to develop the student's research ca-

pabilities, to contribute to improvement in teaching or clinical skills, and to increase the student's knowledge in the specializations appropriate to the particular profession. The student is expected to demonstrate a high degree of intellectual competence and scholarly discipline, to evaluate critically, and to demonstrate mastery of the field of concentration.

The Master of Arts in Communicative Disorders (speech-language pathology and audiology), accredited by the Education and Training Board of the American Boards of Examiners in Speech Pathology and Audiology since 1969, is designed: (1) to provide students with graduate, professional level studies covering the broad field of communicative disorders; (2) to provide students with opportunities to observe, learn and serve communicatively impaired clients within a wide range of clinical facilities, both on-campus and off-campus; and (3) to train students to assess, diagnose and prescribe therapy plans, and to function as therapists for selected types and populations of the communicatively impaired.

Admission to Graduate Standing: Conditionally Classified

Applicants must meet the university requirements for admission to conditionally classified graduate standing: a baccalaureate from an accredited institution and a grade-point average of at least 2.5 in the last 60 semester units attempted.

In addition, the following factors will be taken into consideration by the Graduate Committee in determining who shall be admitted to the program:

1. Background studies in area of major (speech communication or communicative disorders) or allied fields.
2. Grade-point average.
3. Letters of recommendation (preferably on department forms).
4. Professional objectives as presented in a student letter of intent.

Graduate Standing: Classified

A student who meets the requirements for conditionally classified graduate standing, as well as the following requirements, may be granted classified graduate standing upon the development of an approved study plan:

1. Enrollment in Speech Comm 500, Research in Speech Communication, is required within the first nine units of graduate work included on the study plan.
2. Completion of the study plan with 30 units of studies approved by an adviser and the Department Graduate Committee.

Study Plan

The study plan will include the following: (1) 30 units of studies approved by the department Graduate Committee; (2) each program will have at least 15 units in one of the major areas; (3) a core of six to nine units (Speech Communication 500 Research in

Speech Communication, taken very early in the program, and 596 Directed Graduate Research or 598 Thesis; (4) each candidate for an M.A. degree in Speech Communication or Communicative Disorders must take at least three seminars at the 500 level; and (5) adviser-approved supporting courses in related fields where appropriate. A written comprehensive examination is required of all candidates.

For further information, consult the Department of Speech Communication.

CLINICAL REHABILITATIVE SERVICES CREDENTIAL

The credential is awarded by the State Department of Education and requires the following coursework: (85 units minimum)

- I. B.A. degree in Communicative Disorders or equivalent preparation as approved by the department Graduate Committee. (See Core Requirements for the B.A. in Communicative Disorders: 36 units). Electives to be selected from the generic program (see III below).
- II. Admission to the graduate program in communicative disorders.
- III. Generic program and advanced specialization program in speech, language and hearing disorders will include but not be limited to the following:

Basic Requirements: (21 units)

- Speech Comm 403 Speech/Language Development (3)
- Speech Comm 443 Voice Disorders and Cleft Palate (3)
- Speech Comm 453 The Speech/Language and Hearing Clinician as a Counselor (3)
- Speech Comm 464 Audiometry (3)
- Speech Comm 465 Introduction to Aural Rehabilitation (3)
- Speech Comm 542 Neurophysiologic Bases of Speech and Language (3)
- Speech Comm 577 Childhood Language Disorders (3)

Electives: (6 units)

- Speech Comm 571 Seminar in Communicative Disorders: Stuttering (3)
- Speech Comm 573 Seminar in Communicative Disorders: Voice (3)
- Speech Comm 574 Seminar in Communicative Disorders: Articulation (3)
- Speech Comm 575 Seminar in Communicative Disorders: Developmental Disabilities (3)

Related Areas Requirements: (9 units)

- Special Ed 371 Exceptional Individual (3)
- Psyosophy 361 Developmental Psychology (3)
- Linguistics 402 Advanced Phonetics (3) or
- Linguistics 406 Descriptive Linguistics (3)

Clinical Practicum and Public School Practicum: (13 units)

- Speech Comm 458 Basic Clinical Practice (3)
- Speech Comm 489A Public School Practicum in Communicative Disorders (4)
- Speech Comm 490 Speech and Hearing Services in the Schools (2)
- Speech Comm 558 Intern Clinical Practice (2)
- Speech Comm 559A Adv Clinical Practice (2)

CLINICAL REHABILITATIVE SERVICES CREDENTIAL WITH SPECIAL CLASS AUTHORIZATION

This credential with special class authorization is awarded by the State Department of Education and requires the following:

- I. Completion of all requirements for the Clinical Rehabilitative Services Credential (see above 85 units).
- II. Completion of the following: (15 units)
 - Reading 480 The Teaching of Reading (4)
 - Special Ed482A Exceptionality: Curriculum and Methods for the Learning Handicapped (3)
 - Speech Comm 410 Perceptual and Cognitive Problems of the Severe Language Handicapped Child (3)
 - Speech Comm 489B Public School Practicum in the Special Class (4)

Speech Communication Courses

100 Introduction to Human Communication (3)

Process variables crucial to the outcome of communication transactions. Purposes and impact of communication, attitude formation, cognitive message elements and affective message elements. Participation in research projects.

102 Public Speaking (3)

Theory and presentation of public speeches, including an analysis of determinants of comprehension and attitude formation; selection and organization of speech materials, development of delivery skills and evaluation of message effectiveness. Student presentations required. Participation in research projects.

114A Interpersonal Competencies for Student Leaders (1)

Designed to meet the needs of student leaders by providing the skills necessary to establish and maintain effective working relationships within student organizations. No credit toward the major.

114B Group Communication Competencies for Student Leaders (1)

Course focuses on communication behavior, decision-making, leadership considerations and conflict management in work groups. Emphasis is on establishing and maintaining productive student organizations. No credit toward the major.

114C Productive Student Organizations and Meetings (1)

Emphasis on organizational and procedural structures, effective meeting management, and methods for facilitating change and improving communication in student organizations. No credit toward the major.

138 Forensics (2)

Prerequisite: consent of instructor. Investigation and practice in the background, format procedures and evaluation criteria of the various forensic events. Students must participate in at least two intercollegiate tournaments. May be repeated for credit. (More than 6 hours of classwork for each unit of credit)

200 Human Communication (3)

Theories and competencies in interpersonal, small group, public, organizational and intercultural communication. Variations in communication process across contexts is investigated.

220 Interpersonal Conflict Management (3)

Examination of the nature, causes and structure of interpersonal conflict; communication strategies exhibited in conflict; and intervention principles for conflict management. Conflict management theory will be applied to conflicts within marriages, small groups, organizations and intercultural relationships.

235 Essentials of Argumentation and Debate (3)

Introduction to methods of critical inquiry and advocacy. Identifying fallacies in reasoning, testing evidence and evidence sources, advancing a reasoned position, and defending and refuting arguments. Analysis and evaluation of oral and written arguments.

300 Introduction to Research in Speech Communication (3)

Prerequisite: Speech Comm 100 or 200, open only to speech communication majors. Understanding and using professional literature in speech communication and using that literature to generate a formal research paper. A passing grade fulfills the course requirement of the university upper division baccalaureate writing requirement for speech communication majors and communicative disorders majors.

302 Introduction to Manual Communication (3)

Prerequisite: consent of instructor. The basic principles of manual communication and Pidgin sign language systems; fingerspelling and the development of basic sign language vocabulary in Sign English.

303 Biology of Human Communication (3)

Prerequisites: Biology 101 or Zoology 161. The exploration of the biology and evolution of speech and language. Includes speech production, evolution and development; speech perception; language, hemispheric specialization; clinical studies; current methods in neurolinguistics; and plasticity and aging.

305 Liberal Studies in Communication Processes (3)

Introduction to interdisciplinary study and its relationship to communication theory. Nature of communication transactions in various contexts. No credit for speech communication majors.

308 Quantitative Research Methods (3)

Prerequisite: Speech Comm 100 or 200. Current perspectives in empirical research methodology in the discipline of Speech Communication. Experimental designs, common statistical tests and the use of the computer as a research tool.

312 Intermediate Sign Language (3)

Prerequisite: Speech Comm 302 or consent of instructor. A review of basic sign language. Additional sign vocabulary acquisition and improvement of basic expressive and receptive skills in the simultaneous method of communication, utilizing traditional and SEE signs.

314A Student Ambassador Program Training (1)

Prerequisites: Speech Comm 100 or 102 and consent of instructor. An intensive training course in which selected students function as public spokespersons for CSUF. Topics include: interpersonal and public communication; research and speech writing; team building; interviewing; and image management.

315 Male/Female Communication (1)

Prerequisite: Any introductory Social Science course. Examination of differences between males' and females' conversational styles, language usage, and nonverbal communication. Exploration of interpersonal power as the basis for gender differences in communication.

320 Intercultural Communication (3)

Prerequisite: Speech Comm 100. Communication problems that result when members of different cultures communicate. How interpersonal communication can overcome differences in cultures' perceptions of communication's functionality, value orientations, nonverbal behavior, language, epistemologies and rhetorics.

324 Small Group Communication (3)

Prerequisite: Speech Comm 100 or 200. Application of small group and interpersonal communication theory and behavioral research findings. Communication facilitation among individuals in task realization, including interpersonal needs, leadership, norms, roles, verbal and nonverbal messages, and group systems and procedures.

325 Interviewing: Principles and Practices (3)

Principles and practices of interviewing processes. Consideration of appraisal, counseling, employment, exit, journalistic, persuasive and survey types of interviews. Case analyses, simulations and community fieldwork required.

332 Processes of Social Influence (3)

Prerequisite: Speech Comm 100 or 200. Major theories of communication concerned with influence and persuasion in society. Communication effectiveness through strategic application of theory to affecting change and evaluating appeals for change by others.

333 Communication in Business and Industry (3)

Prerequisite: Speech Comm 100 or 200. Human behavior, structural demands and communication within organizations. Application of theory and behavioral research as a framework for generating managerial communication competencies such as interviewing, briefings, conference leadership and intergroup coordination.

334 Persuasive Speaking (3)

Prerequisite: Speech Comm 102 or equivalent. Strategies and tactics appropriate to leading social policy persuasive campaigns. Emphasis on analysis of receiver variables, progressive use of persuasive materials, question and answer techniques, and the development of personal influence. Student presentations required.

335 Advanced Argumentation (3)

Prerequisite: Speech Comm 235 or consent of instructor. Argument as applied to advocacy; logic and evidence as related to analysis of significant issues.

- 338 Intercollegiate Forensics (2)**
Prerequisite: consent of instructor. Directed activity in debate and other forensic events. Participation in intercollegiate competition is required for credit. May be repeated for credit. (More than 6 hours of classwork for each unit of credit.)
- 341 Introduction to Phonetics (3)**
Prerequisite: Speech Comm 100 or 200, or consent of instructor. The analysis and classification of phonemes of American English; the use of the International Phonetic Alphabet; and the study of factors influencing articulation and pronunciation. Work in language laboratory required.
- 342 Introduction to Communicative Disorders (3)**
An overview of content areas and principles of communicative disorders; classification of speech and hearing disorders; professional role at public school, hospital, and clinical sites. Lecture, observation, films, and demonstration.
- 344 Speech and Hearing Science (3)**
Prerequisite: consent of instructor. Anatomy and physiology of the speech and hearing mechanisms; respiration, phonation, resonance, articulation and hearing. Normal functioning as a frame of reference for understanding disordered functioning. Laboratory experience.
- 345 Communicative and Aging (3)**
Prerequisite: Speech Comm 100. Communicative changes found in older adults including normal and pathologic changes in the physiological and behavioral aspects. Topics include diagnosis, rehabilitative strategies, social implications, and health care systems.
- 402 Advanced Phonetics (3)**
Prerequisite: Speech Comm 341 or consent of instructor. Analysis of human speech sound production and narrow transcription. Sounds beyond the range of American English. Taped materials and introduction to phonetics lab including spectrographic analysis. (Same as Linguistics 402)
- 403 Speech/Language Development (3)**
Prerequisite: Speech Comm 100 or 200, or consent of instructor. Phonology, morphology, syntax and semantics of speech and language development from birth through childhood. Meets the language and speech development and disorders requirement for specialized preparation to serve as teachers of exceptional children. (Same as Linguistics 403)
- 410 Perceptual and Cognitive Problems of the Severe Language Handicapped Child (3)**
Prerequisite: senior standing in communicative disorders or consent of instructor. Philosophies and strategies used in training severe language handicapped children to have competencies in basic reading, language and numerical concepts. Classroom management.
- 415 Interpersonal Communication Theory (3)**
Prerequisite: Speech Comm 100 or 200, 308, 324, 420 or consent of instructor. The behavioral and humanistic approaches to theories of interpersonal communication. Functions of communication which influence interpersonal relationships, including communicator characteristics, information exchange, situational demands and interpersonal evaluations.
- 420 Communication Theory (3)**
Prerequisites: Speech Comm 300, 308 and 324, or graduate standing, or consent of instructor. Theoretical models and systems to describe, integrate and evaluate the evolution of communication theory and measurement procedures utilized in the assessment of communication outcomes in theory generation.
- 425 Organizational Communication Dynamics (3)**
Prerequisites: Speech Comm 308 and 333. The interrelationships between management and communication theories. The microsystems and macrosystems within an organization are emphasized in terms of intrapersonal, interpersonal, small group and organizational communication theories.
- 430 Classical Rhetorical Theory (3)**
Prerequisite: six units of upper division courses in communication theory and process to include Speech Comm 300. Contributions of Greek and Roman rhetorical theorists, 4th century B.C. to 300 A.D. and practitioners of the art.
- 432 Contemporary Rhetorical Theory (3)**
Prerequisites: six units of upper-division courses in communication theory and process to include Speech Communication 300. The nature of rhetorical theory in the 20th century.
- 437 Internship: Speech Communication (3)**
Prerequisites: any two of the following courses: Speech Comm 305, 324, 333, 420, 425 or consent of instructor. On-site involvement with communication frameworks as they function in ongoing organizational settings. Working in an organization and seminar activities. Application for internship must be submitted prior to enrollment.
- 438 Principles of Rhetorical Criticism (3)**
Prerequisite: six units of upper-division communication theory and process courses to include Speech Comm 300. Explanation and evaluation of rhetorical experience. Historical modes of criticism, issues in rhetorical criticism, criticism in various contexts and experiences in criticism.
- 441 Dysarticulation and Stuttering (3)**
Prerequisites: Speech Comm 300 or graduate standing, 341, 342, 344, or consent of the instructor. Dysarticulation and stuttering studied with emphasis on descriptive and treatment principles which emerge from current theory and practice.
- 443 Voice Disorders and Cleft Palate (3)**
Prerequisites: Speech Comm 300 or graduate standing, 341, 342, 344, and Psychology 321, or consent of instructor. Etiologic, diagnostic, and management aspects of communicative disorders associated with oromaxillofacial and laryngeal dysfunction or pathology.
- 444 Childhood Language Disorders and Adult Aphasia (3)**
Prerequisites: Speech Comm 300 or graduate standing, and Speech Comm 341, 342, 344 and 403, and Psychology 321. Communicative disorders involving language impairments in children and adults. Emphasis on relationship of language impairments to cognition, central nervous system operations and environmental influences.
- 451 Diagnostic Methods in Communicative Disorders (3)**
Prerequisites: Speech Comm 300, 341, 342, 344, and 441, and Psychology 321. Lecture and supervised demonstrations; techniques and procedures for the assessment of communicative disorders.
- 452 Therapeutic Procedures in Communicative Disorders (3)**
Prerequisites: Speech Comm 300, 341, 342, 344, 441, and Psychology 321. Lecture and supervised demonstrations; techniques and procedures for the treatment of communicative disorders.
- 453 The Speech/Language and Hearing Clinician as a Counselor (3)**
Prerequisites: Speech Comm 342, 441, 463, or consent of instructor. The dynamics of conferencing and counseling. Ef-

fective use of numerous relationship and communication approaches in parent, family and client counseling. Increased self-awareness and the guidance of those exhibiting communication disorders. Making appropriate referrals.

458 Basic Clinical Practice: Communicative Disorders (3)

Prerequisites: Speech Comm 341, 342, 344, 441, 451, 452, and Psychology 321; senior or graduate standing and approved application prior to semester of practicum. The application of diagnostic and therapeutic care to children and adults exhibiting communicative disorders.

463 Audiology (3)

Prerequisites: Speech Comm 344, and Psychology 321, or consent of instructor. The nature of auditory functioning, physical and psychological. Anatomy, pathology and treatment. Rehabilitative methods, facilities and equipment. Partially fulfills the state requirements for public school audiometrist.

464 Audiometry (3)

Prerequisite: Speech Comm 463 or consent of instructor. Presents equipment, methods and procedures used in assessing the complete auditory system. Examines current topics of interest in the diagnosis and treatment of disorders of hearing. Partially fulfills the state requirements for public school audiometrist certification.

465 Aural Rehabilitation (3)

Prerequisites: Speech Comm 341, 463, or consent of instructor. Historical background of lipreading, methods used in the visual reading of speech, and auditory training techniques used in the rehabilitation of the aurally handicapped.

468 Audiology Practicum (1)

Prerequisites: Speech Comm 463, 464, 465 and approved application prior to semester of enrollment in practicum. Audiometric evaluations including pure tone testing, hearing aid evaluations, impedance audiometry and report writing. Provides clinical clock hours in audiology.

485 Aural Rehabilitation Practicum (1)

Prerequisites: SPCOM 464, 465, and approved application prior to semester of enrollment. Supervised rehabilitation of hearing impaired children and adults in on- and off-campus facilities. Provides clinical clock hours in aural rehabilitation. Sign language background recommended.

489A Public School Practicum in Communicative Disorders (4)

Prerequisites: Speech Comm 559A, concurrent registration in Speech Comm 490, application approved prior to semester of practicum, 165 clock hours of clinical practice and graduate status. Meets the directed teaching requirements for the Clinical Rehabilitative Services Credential.

489B Public School Practicum in the Special Class (4)

Prerequisites: Speech Comm 410, Reading 480, Special Education 465A, Speech Comm 559A; Speech Comm 489A and 490 or concurrent enrollment; approved application; and 165 clock hours of clinical practice. Meets the directed teaching requirements of Clinical Rehabilitative Services Credential Special Class Authorization.

490 Seminar: Speech & Hearing Service in Schools (2)

Prerequisite: consent of instructor. Problems and challenges unique to the student clinician in the organization and management of the speech and hearing program in the school. The clinician's role; planning, scheduling, case finding, treatment program reporting and other responsibilities.

496 Student-to-Student Tutorials (1-3)

Consult "Student-to-Student Tutorials" in this Catalog for more complete course description.

499 Independent Study (1-3)

Open to upper division students in speech communication only with signed consent form from department chair. May be repeated for credit.

500 Research in Speech Communication (3)

Prerequisites: Speech Comm 300, 308, or equivalent; admission to M.A. program. Research design and methods used in historical, descriptive and experimental research in speech communication.

510 Seminar in Interpersonal and Relational Communication (3)

Prerequisites: Speech Comm 324, 415 and 420 or consent of instructor. Theoretical and empirical examination of interpersonal and relational communication. Generation of theoretical frameworks and/or heuristic models of concepts and process under investigation.

520 Seminar in Group Communication (3)

Prerequisites: Speech Comm 324 and 420. Small group communication theory. Small group variables, methods and outcomes, and group process as a learning tool.

525 Seminar in Organizational Communication (3)

Prerequisites: Speech Comm 324, 420, and 425, or consent of instructor. Theoretical postulates concerning managerial and organizational communication. Research findings and case studies relating to communication determinants and organizational effectiveness. Communicative relationships among individuals, the work unit and the organization.

535 Seminar in Advocacy (3)

Prerequisite: Speech Comm 335. Texts and periodic literature relating to argumentation and advocacy disclosure.

536 Seminar in Rhetorical Theory (3)

Prerequisite: Speech Comm 430. Rhetorical issues and treatises chosen to represent complementary or contrasting systems of rhetoric.

542 Neurophysiologic Bases of Speech & Language (3)

Prerequisites: Speech Comm 344 and 444, Psychology 321, or consent of instructor. Mechanisms of the central and peripheral nervous systems underlying normal speech and language behavior.

543 Seminar in Communicative Disorders: Neuropathologies (3)

Prerequisites: Speech Comm 441, 443 and 542 or consent of instructor; admission to M.A. program. Problems in neuropathologies. Investigation of experimental and clinical research.

544 Seminar in Communicative Disorders: Aphasia (3)

Prerequisites: Speech Comm 542, 543 or consent of instructor; admission to M.A. program. The etiology of aphasia, dysarthria, apraxia. Diagnosis of communication problems arising from brain-damage. Guest lecturers in aphasia, dysarthria, apraxia, stroke research, internal medicine.

558 Intermediate Clinical Practice: Communicative Disorders (2)

Prerequisite: Speech Comm 458 or equivalent, 465, and approved application prior to semester of practicum. Intermediate clinical practicum in the on-campus Speech, Language

and Hearing Clinics for children and adults. Skills and procedures in diagnosis, therapy, report writing and record keeping.

59A Advanced Clinical Practice: Communicative Disorders (2)

Prerequisites: Speech Comm 542, 558, one other Seminar in Communicative Disorders, and approved application submitted prior to semester of practicum. Advanced clinical practice under supervision with children and adults. Off-campus program in hospitals, clinics, centers and other areas of rehabilitation. All aspects of communicative disorders, speech, hearing and language.

59B Advanced Clinical Practice: Communicative Disorders (2)

Prerequisite: Speech Comm 559A, approved application prior to semester of practicum, or consent of instructor. Advanced clinical practice, under supervision, in off-campus medical, clinical and community center facilities. All aspects of communicative disorders, speech, hearing and language.

70 Seminar in Communicative Disorders: Oromaxillofacial Dysfunction (3)

Prerequisites: Speech Comm 441 and 443; admission to M.A. program. Anatomical and physiological classification systems and diagnostic, therapeutic and research considerations.

71 Seminar in Communicative Disorders: Stuttering (3)

Prerequisites: Speech Comm 441 and 444; admission to M.A. program. Problems in stuttering: investigation of experimental and clinical research.

73 Seminar in Communicative Disorders: Voice (3)

Prerequisites: Speech Comm 441, 443, 542 or consent of instructor; admission to M.A. program. Problems of voice: investigation of experimental and clinical research.

74 Seminar in Communicative Disorders: Articulation (3)

Prerequisites: Speech Comm 441, 443, 542 or consent of instructor; admission to M.A. program. Problems of articulation: investigation of experimental and clinical research.

575 Seminar in Communicative Disorders: Developmental Disabilities (3)

Prerequisites: Speech Comm 441, 444, 542 or consent of instructor; admission to M.A. program. Classifications, etiologies, diagnostic and management programs including sociologic, vocational and psychologic factors and communicative disorders of the mentally retarded population.

577 Seminar in Communicative Disorders: Childhood Language Disorders (3)

Prerequisite: Speech Comm 542. Methods of describing and managing language pathologies in children; lecture, case presentation and review of current literature.

596 Directed Graduate Research (3)

Individual research study, under the supervision of the chair of the student's advisory committee.

598A,B,C Thesis (2,2,2)

Prerequisite: Speech Comm 500. The selection, investigation and written presentation of a selected problem in the field of speech.

599 Independent Graduate Research (1-3)

Open to graduate students only with signed consent form from department chair. May be repeated for credit.

Speech Communication Education Courses

442 Teaching Speech in the Secondary School (3)

Prerequisite: admission to teacher education. Objectives, methods and materials for teaching speech in secondary schools. Required, before student teaching, of students presenting majors in speech for the standard teaching credential.

449E Externship in Secondary Teaching (3)

See description under Division of Teacher Education.

449I Internship in Secondary Teaching (10)

See description under Division of Teacher Education.

449S Seminar Secondary Teaching (2)

See description under Division of Teacher Education.

Women's Studies Program

Program Coordinator: Betty Safford (Philosophy)

Program Office: McCarthy Hall 103

Program Offered

Minor in Women's Studies

Faculty

Helene Ballmer (Psychology), Tony Bell (Sociology), Bert Buzan (Political Science), Carol Copp (Sociology), Angela Della Volpe (Linguistics), Wacira Gethiaga (Afro-Ethnic Studies), Rosalie Gilford (Sociology/Gerontology), Kenneth Goodhue-McWilliams (Biological Science), Joan Greenwood (English), Hilla Israely (Sociology), Carl Jackson (Afro-Ethnic Studies), Helen Jaskoski (English), Judith Kandel (Biology), Elliot Kushell (Management), Judith LaMaster (Psychology), Karen Lystra (American Studies), G. Nanjundappa (Sociology), David Pivar (History), Jill Rosenbaum (Criminal Justice), Diane Ross (HEPER), Hazel Hawkins Russell (Afro-Ethnic Studies), Betty Safford (Philosophy), Sandra Sutphen (Political Science), Emery J. Tolbert (Afro-Ethnic Studies), Marjorie Tussing (Foreign Languages), Richard Wiseman (Speech Communication), Corinne Wood (Anthropology), Jerome Wright (Human Services)

INTRODUCTION

The minor in women's studies is designed for students (both women and men) who have a particular interest in learning more about the roles and status of women in society. Cross-disciplinary in structure, the minor draws from a wide variety of courses offered by many departments throughout the university. The goals of the minor are to apply concepts learned in women's studies courses to other academic areas, to encourage more students to do research in the area, and to prepare students in selected career paths where sensitivity to women's issues is important (particularly, business, education, counseling, human services, public administration and the health professions, as well as liberal arts degrees in general).

Student Services

The *Women's Studies Student Association* is an active and involved group which presents speakers, participates in colloquia, distributes an informative and entertaining newsletter, and serves to coordinate social and instructionally-related programs among students interested in the women's studies program and women's issues.

The Women's Studies Program maintains a close relationship with the *Women's Center* (located in the basement of McCarthy Hall), where students congregate to read announcements, share information and attend meetings. The Women's Center maintains a library of journals and texts used in women's studies courses and serves as the headquarters for the Women's Studies Student Association.

MINOR IN WOMEN'S STUDIES

The minor consists of 22 units, selected from the following categories:

Core Courses (4 units):

Phil 302 Intro to Women's Studies (3)
Biol Sci 360 Biology of Human Sexuality (1)

Breadth Courses (9 units):

Courses should be selected from among the following in disciplines other than one's major. Courses in the major may not be used for credit toward the minor.

Anthro 432 Women in Cross-Cultural Perspective (3)
Phil 343 Philosophy of Feminism (3)
Poli Sci 485 Politics of Change (3)
Psychology 310 Psychology of Women (3)
Sociology 450 Sociology of Sex Roles (3)

Elective Courses (9):

Selected from among the following, or with the consent of the program coordinator. Courses listed under "Breadth Courses" which are not used to fulfill the breadth requirements may also be used to fulfill the elective requirements.

Afro 310 Black Women in America (3)
Afro 311/Huser 311 Intracultural Socialization Patterns (3)
Amer Studies 355 Amer Sexual Politics (3)
Amer Studies 450 Women in American Society (3)
Chicano 406 La Chicana (3)
Crim Just 430 Women and Crime (3)
English 355 Images of Women in Literature (3)
*French 485 Seminar in French Literature (3)
*German 485 Seminar in German Literature (3)
History 370 American Sex Reformers (3)
Ling 369 Sex, Language and the Brain (3)
Management 431 Women In Management (3)
Poli Sci 474 Seminar in Constitutional Law: Civil Rights and Civil Liberties (3)
Psych 312 The Psychology of Human Sexual Behavior (3)
Psych 477 Human Sexual Dysfunction (3)
Sociology 407 Women in Contemporary Society (3)
Sociology 408 Sexual Abuse in American Society (3)
Sociology 446 Aging and Sexuality (3)
Sociology 470 Sociology of Occupations (3)
Speech Comm 315 Male-Female Communication (1)
Independent Studies, offered in various departments (1,2 or 3)*

*When course topic focuses upon women.

School of Natural Science and Mathematics

Dean: A. James Diefenderfer

Associate Deans: John Olmsted and

Margaret Woyski

Assistant Dean: Lynne McVeigh

Programs Offered

Biological Sciences (B.A.)

Biology (M.A.)

Chemistry (B.A., B.S., Minor, M.S.)

Geology (B.S., Minor)

Mathematics (B.A., Minor, M.A.)

Physics (B.S., Minor)

Science (M.A.T.)

Teaching Credential

Single Subject Waiver Program in Life Science

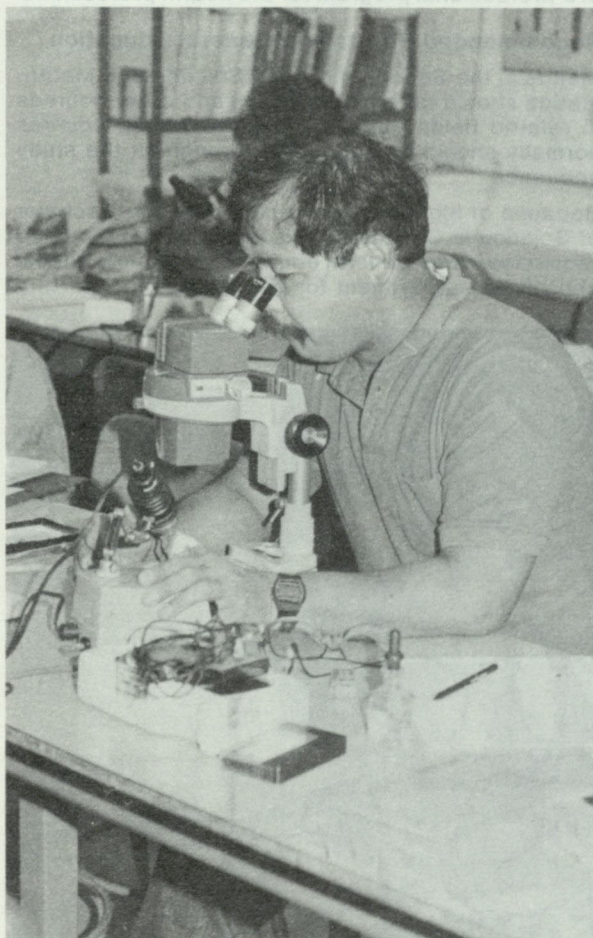
Single Subject Waiver Program in Physical Science

Single Subject Waiver Program in Mathematics

The curricula of the School of Natural Science and Mathematics are designed to prepare students for careers in scientific and other technical fields, for further study and specialization in advanced graduate work, and for entry into professional schools of medicine and other health-related disciplines. The faculty of the school is actively involved not only in instruction and scholarship but also in the advisement of students in the school on topics relating to the planning of career and program goals. Cooperative education internship programs are available in each of the school's departments.

A Natural Science and Mathematics Advisory Council, composed of distinguished leaders representing industry, education and the health professions, provides the school with advice on matters related to curriculum, career options and service opportunities.

The school sponsors the Industrial Associates Program by which students and faculty are brought together with their industrial counterparts for a variety of professional opportunities.



Recommended Preparation: For a career in mathematics or science a sound foundation in mathematics and science is essential. High school preparation should include:

- at least three, preferably four, years mathematics
- chemistry and/or physics, preferably both
- two or three years of foreign language.

Community college preparation should include at the minimum:

- college writing
- calculus
- college chemistry
- first course in the major.

Qualifying Examinations: Enrollment in introductory courses is restricted to those who are adequately prepared, as shown by performance on qualifying examinations. In addition, the Entry Level Mathematics (ELM) examination is required of all students.

Undergraduate Student Advisement

Undergraduate students should call the department office of their major to arrange for advising and approval of their study plan. University policy requires students to see an adviser each of their first two semesters and every year thereafter. Three critical times for advising are before registering for the first semester, when selecting electives for the study plan, and two semesters before graduation for a graduation check. Most departments prefer to advise their majors more frequently.

Students interested in programs in the school, but without a declared major should call the Office of the Dean for advisement.

Advisement for Health Professions

It is important for any student interested in pre-medical and allied fields to seek advisement at the Health Professions Office prior to registering for the first semester.

Graduate Student Advisement

Graduate students should consult the graduate adviser in their major department before registering for the first semester. No more than nine units may be completed before an approved study plan is filed.

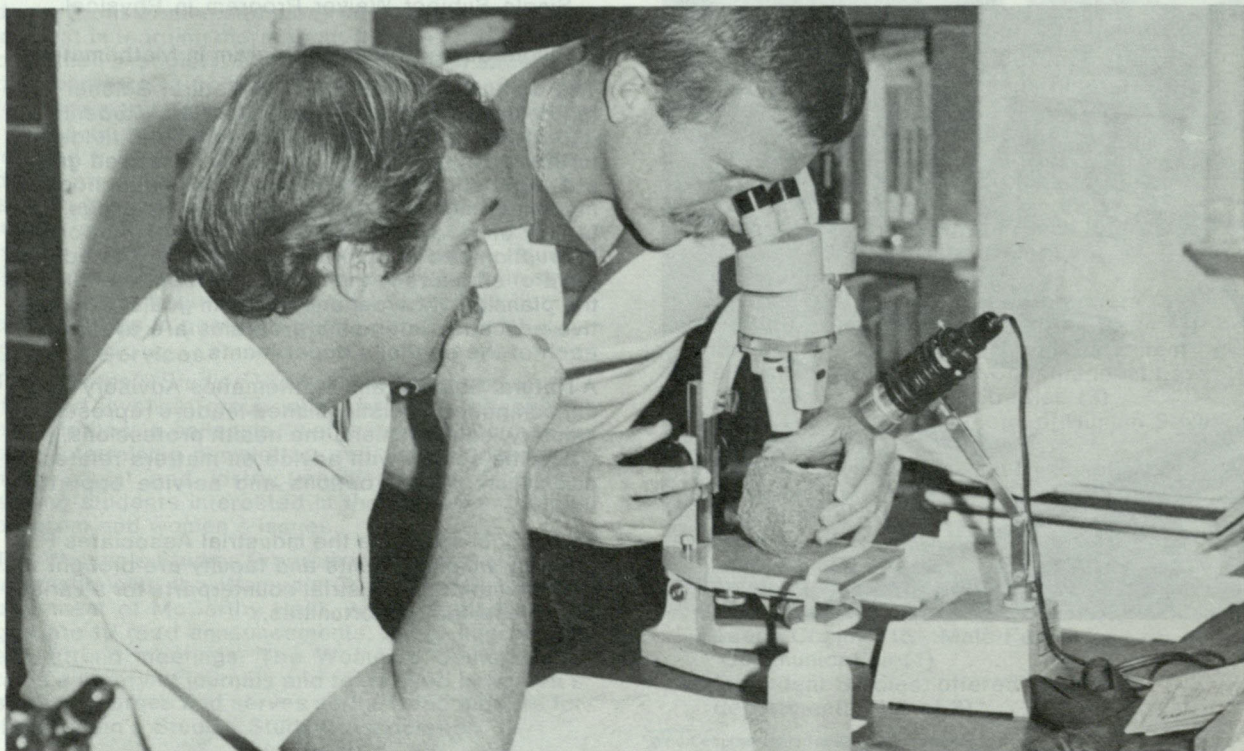
Prizes

The Miles McCarthy Health Professions Award is made annually to the outstanding graduate from the pre-professional program for the health professions.

Recommended Program in General Education

Majors in the School of Natural Science and Mathematics should take mathematics and other courses in related fields early. General education courses normally should be scheduled throughout the study sequence.

Because of high unit requirements for the Bachelor of Science in Chemistry, this program has modified requirements for general education. Students should consult the department for particulars.



Department of Biological Science

Department Chair: Steven Murray
Director, Graduate Program: Michael Horn
Department Office: McCarthy Hall 282

Programs Offered

Bachelor of Arts in Biological Science

Master of Arts in Biology

Medical Technology Option

Waiver Program for Single Subject Teaching Credential in Life Science (Ryan)

Faculty

Phillip Adams, Natalie Barish, L. Jack Bradshaw, Bayard Brattstrom, Jack Burk, Jewel Plummer Cobb, Calvin Davenport, David Fromson, Kenneth Goodhue-McWilliams, Ted Hanes, Michael Horn, C. Eugene Jones, Judy Kandel, Robert Koch, Charles Lambert, Kathryn Leary, Miles McCarthy, Lon McClanahan, Steven Murray, Joyce Ono, William Presch, Marvin Rosenberg, Alvin Rothman, Roger Seapy, James Smith, Donald Sutton, G. Cleve Turner, David Walkington, Joel Weintraub

INTRODUCTION

Biology is the study of life; its basis and processes. The discipline is dynamic and expanding rapidly. In one direction, the study of molecular origins is the basis for understanding how cells are constructed and how they function including their metabolism, growth, development and reproduction. In another direction, the study of organisms is the basis for the understanding of how populations of organisms interact among themselves and with their environment. This includes a consideration of the distribution and abundance of organisms, energy flow among organisms and the cycling of inorganic and organic resources.

The major in biological sciences is designed for students who (1) desire to enter graduate and professional schools; (2) wish to prepare for secondary school teaching; or (3) seek careers in industry and state or federal agencies. The purposes of these students can best be served by building their curricula on a core of courses fundamental to the science of biology. Biology majors shall select one of the major categories within biology and take the corresponding core courses. The two major categories are (1) ecological and organismic biology, and (2) molecular, cellular and physiological biology.

The curricula beyond the basic core experience, can best be satisfied through individual advising rather than through prescribed programs. Students will be assigned a faculty adviser with expertise in the sub-discipline of biology which most closely parallels their interests. The Department of Biological Sci-

ence has established curricula in subdisciplines of biology which include: botany, cell and molecular biology, ecology, genetics, marine biology, medical biology, microbiology and zoology. After discussion with their advisers, students will elect those upper-division courses which will satisfy their individual interests and professional goals.

Special Programs

In addition to the usual course offerings, the Department of Biological Science participates in the Institute for Molecular Biology and two consortial programs with other California State University campuses. These are the Southern California Ocean Studies Consortium and the California Desert Studies Consortium at Soda Springs, which are described in this catalog under "Institutes/Study Centers."

Preprofessional Information

The Office of Health Professions provides advising services to students wishing to enter the health professions. The services include counseling students to plan their academic programs, providing students with the opportunity to volunteer for work opportunities in the area of their interest, and providing assistance in the preparation of applications, including interviewing techniques. Preprofessional students are advised to use Major Category II, Molecular, Cellular and Physiological Biology as their core option.

Credential Information

To qualify for a waiver from the examination for a Single Subject Credential in Life Science, the following courses must be included among, or in addition to, the requirements for the B.A. in Biological Science: Biological Sci 141L, 161L, 302L, and 315L or 316L. One of: Biological Sci 362, 410, 468, or 444. One of: Biological Sci 419 and 419L, 446, 461, or 475.

Jerome Wilson Scholarship

To preserve the memory of Dr. Jerome Wilson, two scholarships per year are awarded to deserving undergraduate or graduate students of biology.

Recommended Program in General Education

Because of high unit requirements for the B.A. degree in biological science, students are urged to consult with their adviser to design their general education program.

Upper-Division Baccalaureate Writing Requirement

In addition to passing the English Writing Proficiency exam, students must pass English 360, Scientific and Technical Report Writing, with a grade of C or better.

Internships

Biological Science 490, Biological Internship, provides students with the opportunity to participate in a practical work experience which integrates their interests with classroom studies.

BACHELOR OF ARTS IN BIOLOGICAL SCIENCE

A total of 124 units, including general education, 39 units in *biology courses* (21 units in the core and 18

units of upper-division electives), the upper-division writing requirement and *supporting courses* in physical sciences and mathematics are required for completion of the B.A. in Biological Science. The *supporting courses* must include one year of general college chemistry including qualitative analysis with laboratory, two semesters of organic chemistry with laboratory, one semester of college calculus, and one year of college physics with laboratory. Those students seeking careers in medicine should take a year of calculus, quantitative chemistry and laboratory. Those students who wish to earn a doctoral degree should consider, in addition, a modern foreign language or advanced courses in computational sciences.

To qualify for a baccalaureate degree in biological science, students must have a 2.0 overall average in all required supporting courses. No credit toward the major will be allowed for biological science courses in which a grade of D or F is obtained. Courses taken under the Credit/No Credit grade option may not be applied towards the major.

Upper-division students will be permitted to enroll in Biological Science 480, Advanced Topics in Biology, Biological Science 496, Biological Science Tutorial, and Biological Science 499, Independent Laboratory Study, for a total of six units. All full-time upper-division students are expected to attend the departmental seminars.

Core Requirements for the Major

Major Category I

Ecological and Organismic Biology	Units
141 Principles of Botany	2
161 Principles of Zoology	2
302 General Microbiology	2
312 Genetics	3
315 Cell and Molecular Biology	3
316 Principles of Ecology	3
316L Principles of Ecology Laboratory	2
Two of the following courses:	4
141L Principles of Botany Laboratory	
161L Principles of Zoology Laboratory	
302L General Microbiology Laboratory	
Total	21

Major Category II

Molecular, Cellular and Physiological Biology

141 Principles of Botany	2
161 Principles of Zoology	2
302 General Microbiology	2
302L General Microbiology Laboratory	2
312 Genetics	3
315 Cell and Molecular Biology	3
315L Cell and Molecular Laboratory	2
316 Principles of Ecology	3
One of the following courses:	2
141L Principles of Botany Laboratory	
161L Principles of Zoology Laboratory	
Total	21

Electives: 18 units of upper-division courses, must include four units (12 hours) of laboratory and/or fieldwork. 18

Total 39

Students are strongly advised to complete Biological Science 141 and 161 as soon as possible and to complete Biological Science 302 and 312 prior to Biological Science 315.

Supporting Course Requirements for the Major

Chem 120A,B	General Chemistry	10
Chem 301A,B	Organic Chemistry	6
Chem 302	Organic Chem Lab	2
Physics 211A,AL	Elementary Physics	4
Physics 211B,BL	Elementary Physics	4
Math 130	A Short Course in Calculus or Math	
150A	Analytic Geometry and Calculus	4

Total 30

MASTER OF ARTS IN BIOLOGY

The program is based on the assumption that modern science necessitates broad preparation through the master's level of training. In design, it offers sufficient breadth and depth to strengthen the student's academic understanding and improve competence for (a) advanced graduate work toward the doctoral degree in biological science, (b) teaching at all levels—elementary, secondary and community college, (c) participating in research programs, (d) participating in various field service and conservation positions with both the state and national governments, (e) entering the field of public health service, or (f) technological work in the health sciences.

Admission Requirements

An applicant must meet the university requirements for admission, which include a baccalaureate from an accredited institution, and a grade-point average of at least 2.5 in the last 60 semester units attempted (see section of this catalog on Graduate Admissions for complete statement and procedures). In addition to the university requirements for admission, acceptance into this program is contingent upon the following: (1) a B.A. in Biological Science or related area at Cal State Fullerton or other accredited institution with a grade-point average of 3.0 in biological science courses and a GPA of 2.5 in the related courses in mathematics, chemistry and physics; (2) acceptance by a thesis adviser; and (3) satisfactory scores on one of the following: (a) Graduate Record Examination Aptitude Test and the Advanced Test in Biology; (b) Medical College Admission Test; (c) Dental Admission Test; (4) completion of departmental application; and (5) submission of two letters of recommendation.

Students must meet the Graduate Level Writing Requirement which can be found in this catalog under "Graduate Regulations." Students who have not met the requirement within the first nine units of graduate work are required to enroll in English 360, Scientific and Technical Writing.

Students with limited subject or grade deficiencies may be considered for conditional acceptance to the program. Conditionally classified graduate standing may be removed upon completion of nine units of adviser and graduate committee approved postgraduate studies in biology, mathematics, chemistry or physics, with grades of B or better.

Classified Standing

Students should achieve classified graduate standing as soon as they are eligible, since no more than nine units of graduate work taken before classification can be included on the study plan (see below) for the degree. A student who meets the admission requirements may apply for classified standing, which requires the development of a study plan approved by the adviser, thesis committee, director of the departmental graduate program and dean of graduate studies.

Advancement to Candidacy

Advancement to candidacy is attained by requesting a graduation check and receiving subsequent approval of the graduate program adviser on Form B, mailed by the Graduate Studies Office.

Study Plan

A study plan includes a minimum of 30 units of adviser-approved graduate work; at least one-half of the total units must be at the 500-level. All study plans must include Biological Science 599, Independent Graduate Research, and Biological Science 598, Thesis, and at least one departmental seminar. Six units must be outside the principal area. Required is a thesis acceptable to the adviser and committee, covering a research problem. A final oral examination on the student's research is also required.

Supervising the work of graduate students requires the personal attention of advisers. To insure that advisers are available for new graduate students a graduate student is expected to complete the requirements for graduation within three years after classification.

Students who are graduate assistants should complete the classification step either prior to appointment or during their first semester of appointment. They must become classified before being reappointed.

For more detailed information or advisement, students should contact the Biological Science Department, or the Graduate Program Director of the Biological Science Department.

Medical Technology Option

This non-thesis program is designed for Licensed Medical Technologists employed in the field who desire to enhance their scientific training. The program of study includes 30 units of courses offered specifically for this program. For further information, contact the program director in the Biological Science Department.

Biological Science Courses

Unless otherwise designated, prerequisites may be waived by the instructor of the course if the instructor is satisfied that the student is qualified to undertake the course.

101 Elements of Biology (3)

Living organisms and the characteristics of the natural environment. (3 hours lecture)

101H Elements of Biology (Honors) (3)

Corequisite: Biological Science 101LH (Honors) *must* be taken concurrently with this course. Students must meet honors qualifications. Living organisms and characteristics of the natural environment. Emphasis on the scientific reasoning leading to our current understanding of living systems. (3 hours lecture)

101L Elements of Biology Laboratory (1)

Prerequisite or corequisite: Biological Science 101. Laboratory experiments demonstrating the principles presented in the lecture course. Surveys of the plant and animal kingdoms, cell structure and function, physiology, genetics, evolution and ecology. (3 hours laboratory or fieldwork; weekend field trips may be required)

101LH Elements of Biology Laboratory (Honors) (1)

Corequisite: Biological Science 101H (Honors) *must* be taken concurrently with this course. Students must meet honors qualifications. Laboratory experiments and demonstrations which provide insight to scientific reasoning and the basis of our current understanding of living systems. (3 hours laboratory or fieldwork; field trips may be required)

102 Issues in Environmental Biology (3)

Biological knowledge for understanding current environmental and health problems. The ecology of humans and biological problems. No credit toward Biological Science major. (3 hours lecture)

141 Principles of Botany (2)

The plant kingdom. The dynamic nature of plants as revealed by their anatomy, morphology, physiology, evolution and ecology. Required of all biological science majors. (2 hours lecture)

141L Principles of Botany Laboratory (2)

Corequisite: Biological Science 141. A survey of the structure, function, classification, phylogeny, physiology and ecology of plants. (6 hours laboratory or fieldwork; weekend field trips may be required)

161 Principles of Zoology (2)

The animal kingdom. Structure, classification, phylogeny, physiology, behavior and ecology of invertebrate and vertebrate animals. Required of all biological science majors. (2 hours lecture)

161L Principles of Zoology Laboratory (2)

Corequisite: Biological Science 161. A survey of representative invertebrate and vertebrate organisms to provide a practical study of the structure, function, classification, phylogeny, physiology, behavior and ecology of animals. (6 hours laboratory or fieldwork; weekend field trips may be required)

302 General Microbiology (2)

Prerequisites: completion of lower division biology core courses and one year of college chemistry. Morphology,

growth and physiology of bacteria and other microorganisms, and microbial interactions with other organisms, including humans. Required of all biological science majors. (2 hours lecture)

302L General Microbiology Laboratory (2)

Corequisite: Biological Science 302. Introduction to microscopic, cultural and physiological methods of studying microorganisms, and their application and identification of microbial organisms. (6 hours laboratory)

305 Human Heredity and Development (3)

Prerequisite: One semester of college biology. Principles of human heredity and embryology relating to human development. Mendelian genetics, single gene effects, genetics, prenatal diagnosis, and human embryology. No credit toward biological science major. (3 hours lecture)

306 Biology of Aging (3)

Prerequisite: Biological Science 101 or equivalent. Biological changes in cells, tissues, organs and the whole body associated with aging. Theories of aging will be discussed with primary emphasis on mammals. No credit toward biological science major. (3 hours lecture)

307 Computer Applications in Biology (3)

Prerequisite: upper-division standing in biology. Introduces biology students to the efficient use and application of computers in data organization, management and assimilation with respect to the natural and health sciences. (1 hour lecture and 6 hours laboratory)

308 Biological Illustration (3)

Prerequisite: one year of college biology. Line illustration and lettering used in preparation of biological drawings, charts and graphs for scientific publication. (1 hour lecture, 6 hours laboratory)

312 Genetics (3)

Prerequisite: one year of college biology. The general principles and modern developments in the study of heredity. Required of all biological science majors; nonmajors see Biological Science 313. To be taken prior to Biological Science 315. (3 hours lecture)

312L Genetics Laboratory (2)

Prerequisite or corequisite: Biological Science 312. An introduction to the experimental analysis of the mechanisms of heredity. Exercises include cytological studies, transmission genetics, population genetics, induced mutation, gene localization, molecular mapping and others. (6 hours laboratory)

313 Human Genetics (3)

Prerequisite: one semester of college biology. Principles of heredity. Methods of analysis, interaction of genes and environment, and gene populations in humans. No credit toward biological science major. (3 hours lecture)

314 Human Issues in Genetics (1)

Prerequisite: one semester of college biology. Biological basis for decisions relating to detection and treatment of genetic defects, human and fetal research, and eugenics. Legal and ethical problems raised by such decisions. (3 hours lecture and discussion per week for 5 weeks)

315 Cell and Molecular Biology (3)

Prerequisites: one year college biology, Biological Science 312 and one semester organic chemistry. The cell and cell organelles including a study of cellular macromolecules,

their synthesis, function and integration into organelles. Modern data-gathering techniques and instrumentation, organelle function, bioenergetics, protein synthesis and gene function at the molecular level. Required of all biological science majors. (3 hours lecture)

315L Cell and Molecular Biology Laboratory (2)

Corequisite: Biological Science 315. Laboratory exercises in cell and molecular biology to give the students experience in the analysis and characterization of cellular components and processes. (6 hours lecture)

316 Principles of Ecology (3)

Prerequisite: one year of college biology. An introduction to population, community and ecosystem ecology. Required of all biological science majors. (3 hours lecture)

316L Principles of Ecology Laboratory (2)

Corequisite: Biological Science 316. Laboratory and field activities designed to investigate the interrelationships of organisms and their environment at the population, community and ecosystem levels. (6 hours laboratory or fieldwork; weekend field trips may be required)

317 Wildlife Conservation: Current Issues and Future Directions (1)

Prerequisite: One semester of college level biology. Causes and consequences of extinctions among plant and animal species. Endangered species, threatened ecosystems, nature reserves, captive species management. No credit toward biological science major. (3 hours lecture per week for 5 weeks)

319 Marine Biology (3)

Prerequisite: one semester of college biology. Marine plants and animals and their habitats. Marine biology especially in the Southern California region. No credit toward biological science major. (3 hours lecture)

319L Marine Biology Laboratory (1)

Corequisite: Biological Science 319. Laboratory analyses of marine plants and animals and their habitats. No credit toward biology major. (3 hours laboratory or fieldwork; weekend field trips may be required)

323 Biology of Sexually Transmitted Diseases (STD) (1)

Prerequisite: one semester of college level biology. The symptoms, diagnosis, treatment and control of a number of sexually transmitted diseases including gonorrhea, syphilis, herpes, chancroid and venereal warts are examined. (3 hours lecture per week for 5 weeks)

340 Field Botany (3)

Prerequisite: Biological Science 141, 141L, or equivalent. The native flora of Southern California. Identification techniques and factors which determine the distribution of species. (1 hour lecture, 6 hours laboratory or fieldwork; weekend field trips may be required)

344 Survey of the Land Plants (4)

Prerequisite: one year of college biology. A survey of the anatomical and morphological characteristics of the land plants as they relate to the evolutionary development and ecological strategies of these plants. (2 hours lecture, 6 hours laboratory)

352 Plants and Life (3)

Prerequisite: one semester of college biology. Man's dependence upon and economic interest in plants throughout the

world. The domestication of plants and the origin of agriculture. (3 hours lecture)

352L Plants and Life Laboratory (1)

Corequisite: Biological Science 352. The manufacture and use of economically important plant derivatives. (3 hours laboratory)

353 Principles of Horticulture (2)

Prerequisite: one semester of college biology. The study of cultivated plants including garden, house, ornamental and fruit plants; their propagation, care and requirements. No credit toward biological science major. (2 hours lecture)

353L Principles of Horticulture Laboratory (1)

Prerequisite: Biology 353, concurrent enrollment in 353, or consent of instructor. The propagation and care of horticultural plants. (3 hours laboratory)

360 Biology of Human Sexuality (1)

Prerequisite: one semester of college biology. The biology of the human reproductive system. Sexual differentiation, structure and function, fertility and infertility, coitus, childbirth, contraception and venereal disease. No credit toward biological science major. (3 hours lecture per week for 5 weeks)

361 Human Anatomy (4)

Prerequisite: one year of college biology. A systems approach to the structure and function of the human body. For biology majors and related health sciences; students with zoology emphasis should take Biological Science 463. (2 hours lecture, 6 hours laboratory)

362 Mammalian Physiology (4)

Prerequisite: one year of college biology and college chemistry. The fundamental mechanisms of mammalian physiology. For biology majors and related health sciences. Students with zoology emphasis should take Biological Science 468. (3 hours lecture, 3 hours laboratory)

367 Insects and the Human Ecosystem (3)

Prerequisite: One semester of college biology, upper division standing. Insect adaptations, behavior and ecology; their influence on human resources and health. Cultural attitudes toward, and historical importance of insects. No credit toward biological science major.

401 Biogeography (3)

Prerequisite: one year of college biology. Evolutionary patterns and mechanisms of distribution of plants and animals in the major habitats of the world. Current concepts and theories. (3 hours lecture)

403 Biosystematics (3)

Prerequisite: one year college biology. A study of the principles and techniques of biological systematics, focusing on evolutionary mechanisms, phylogenetic relationships, organismic diversity and principles of classification. (3 hours lecture; weekend field trips may be required)

404 Evolution (3)

Prerequisite: one semester of college biology or Biological Science 161. The history of evolutionary thought; origin of universe, earth and life; geological and paleontological history of the earth; evidences derived from comparative anatomy, embryology, genetics, zoogeography; mechanisms of evolution. (3 hours lecture)

405 Developmental Biology (3)

Prerequisite: Biological Science 315, 315L. Either Biological Science 312 or 464 recommended. Molecular and cellular processes in the development of organisms such as oo-genesis, fertilization, cytokinesis-morphogenetic movements, and nucleocytoplasmic interactions. (3 hours lecture)

406 Biometry (4)

Prerequisites: Mathematics 120, 130, or 150A; upper-division standing in biological sciences. Experimental design, interpretation, and application of statistics to biological problems. (3 hours lecture, 3 hours laboratory)

407 Seminar in Human Sexuality (3)

Prerequisites: one semester of college biology and upper-division standing. The biological-physiological bases of human sexuality as they relate to human sexual interaction and social change. (3 hours lecture/discussion)

409 Multivariate Biometry (4)

Prerequisite: Biological Science 406. Experimental design, interpretation, and application of multivariate statistics to biological problems. Topics include: Principal Component, Discriminant, Canonical Correlation, Ordination, and Cluster analyses. (2 hours lecture, 6 hours laboratory)

410 Cell Physiology (4)

Prerequisites: Biological Science 315 and 315L. The cell environment, cell membranes, permeability, bioelectricity, mechanisms for intercellular and intracellular communication and cell motility. (2 hours lecture, 6 hours laboratory)

411 Photomicrography (3)

Prerequisites: upper-division standing and consent of instructor. Methods and techniques of photomicroscopy emphasizing a variety of subject materials and optical equipment. For students requiring skills in photomicrography for teaching and research. (1 hour lecture, 6 hours laboratory)

412 Principles of Gene Manipulation (3)

Prerequisites: Biological Science 312, 315, 315L and Chemistry 301AB. Current approaches to the production of recombinant DNA molecules. Cutting and joining DNA molecules, vectors, transformation, selection, expressions and implications of research.

413 Advances in Molecular Genetics (3)

Prerequisites: Biological Science 312, 315, 315L and Chemistry 301A,B. The organization, replication and function of the genetic material and informational macromolecules. Chromosomal structure and function, recombination, mutagenesis, genetic coding, protein synthesis, biogenesis of RNA molecules and regulation of gene expression. (3 hours lecture)

415 Introduction to Electron Microscopy (4)

Prerequisites: Biological Science 315 and 315L. Fixation, embedding and thin sectioning of biological tissues; operation of the electron microscope; EM darkroom procedures; and interpretation of electron micrographs. (2 hours lecture, 6 hours laboratory)

416 Freshwater Biology (4)

Prerequisites: Biological Science 141, 141L, 161, 161L and one year of college chemistry. The study of stream, pond, and lake plant and animal distribution in relation to physical and chemical factors. (2 hours lecture, 6 hours laboratory or fieldwork; weekend field trips may be required)

419 Marine Ecology (3)

Prerequisites: one year of college biology. Marine ecology, including interrelations of planktonic, nektonic and benthic organisms with their environment. (3 hours lecture)

419L Marine Ecology Laboratory (1)

Corequisite: Biological Science 419. Field and laboratory studies of planktonic, nektonic and benthic communities. (3 hours laboratory or fieldwork; weekend field trips may be required)

423 Pathogenic Bacteriology (4)

Prerequisites: Biological Science 302, 302L, 315 and 315L. The biology of infectious diseases; mechanisms of pathogenicity; modes of action of antimicrobial agents. Emphasis on characteristics of specific pathogenic bacteria and their identification. (2 hours lecture, 6 hours laboratory)

424 Immunology (4)

Prerequisites: Biological Science 302, 302L, 315 and 315L; concurrent enrollment in biochemistry is strongly advised. The molecular, cellular and organismic nature of the immune process. Inflammation, phagocytosis, antigens, immunoglobulins and cell-mediated immune phenomena. Modern immunology techniques. (2 hours lecture, 6 hours laboratory-discussion)

425 Pathobiology (3)

Prerequisites: Biological Science 302, 302L, 361, 362, Chemistry 351. For students engaged in the allied health sciences or who have had at least a year's experience in the allied health field. Pathobiological processes including etiology, cytopathology, histopathology, gross pathology and epidemiology. No credit toward Biological Science major. (3 hours lecture)

426 Virology (3)

Prerequisites: Biological Science 302, 302L, 315 and 315L. Viral structure and host-virus interactions in the viral replication process, with emphasis on animal and bacterial virus systems. (3 hours lecture)

427 Medical Mycology/Protozoology (4)

Prerequisites: Biological Science 302, 302L. Essentials of pathogenicity, diagnosis and treatment of fungi pathogenic to man and animals. (2 hours lecture, 6 hours laboratory)

428 Biology of Cancer (3)

Prerequisites: Biological Science 315 and 315L. The cancer problem as a dilemma of biology. Clinical and epidemiological aspects. Current research. (3 hours lecture)

432 Microbes and Food Production (2)

Prerequisites: Biological Science 302 and 302L or equivalent for grade option; none for C/NC option. The ancient and modern processes of making cheese from milk, wines from fruits, breads and beers from grains. The microbes involved in transforming the unstable raw materials into more desirable products. (1 hour lecture, 3 hours laboratory or fieldwork; weekend field trips may be required)

433 Microbial Problems in Foods (2)

Prerequisites: Biological Science 302 and 302L or equivalent for grade option; none for C/NC option. Food spoilage, food intoxication and foodborne diseases caused by microbes in food processing. The microbes involved, sources of contamination, and methods used in detection and prevention of problems. (1 hour lecture, 3 hours laboratory or fieldwork; weekend field trips may be required)

438 Public Health Microbiology (4)

Prerequisites: Biological Science 302 and 302L and upper-division standing. The control and epidemiology of infectious diseases of public health importance, water and sewage microbiology. Control of current problems. (2 hours lecture, 6 hours laboratory)

441 Plant Taxonomy (4)

Prerequisite: one year of college biology. Classification and evolution of vascular plants; emphasis on the flowering plants. (2 hours lecture, 6 hours laboratory or fieldwork; weekend field trips may be required)

443 Plant Ecology (4)

Prerequisite: one year of college biology. Community and population ecology of terrestrial plants. Environmental factors and plant distribution with emphasis on California vegetation. (2 hours lecture, 6 hours laboratory or fieldwork; weekend field trips may be required)

444 Plant Physiology (4)

Prerequisites: one year of college biology and one semester of organic chemistry. Fundamental mechanisms of plant physiology with primary emphasis on whole plant physiology and physiological ecology. (2 hours lecture, 6 hours laboratory)

446 Phycology (4)

Prerequisites: one year of college biology or Biological Science 141, 141L, 161 and 161L. Biological aspects of marine and freshwater algae; comparative development, morphology, taxonomy and ecology. (2 hours lecture, 6 hours laboratory or fieldwork; weekend field trips may be required)

460 Embryology (4)

Prerequisites: Biological Science 161 and 161L. Comparative and experimental analysis of the development of invertebrate and vertebrate animals including man. Laboratory emphasizes living invertebrate and vertebrate embryos. (2 hours lecture, 6 hours laboratory)

461 Invertebrate Zoology (4)

Prerequisite: one year of college biology. Evolution, classification, morphological and physiological adaptations, and biology of invertebrate animals. Dissection, identification and observation of living animals. (2 hours lecture, 6 hours laboratory or fieldwork; weekend field trips may be required)

462 Biomedical Parasitology (4)

Prerequisite: one year of college biology. The relationships at all levels of animal organization. Disease-causing organisms, their life cycles, detection and diagnosis. (2 hours lecture, 6 hours laboratory)

463 Comparative Vertebrate Anatomy (4)

Prerequisite: one year of college biology. The chordates; morphology and evolution of organ systems of the chordates with special emphasis on vertebrates. Comparative dissection of numerous vertebrates. (2 hours lecture, 6 hours laboratory)

464 Human Embryology (4)

Prerequisite: Biological Science 161 and 161L. Human development from gametogenesis through organogenesis. Frog, chick and pig serial sections; histogenesis and organogenesis. (2 hours lecture, 6 hours laboratory)

465 Animal Ecology (4)

Prerequisite: one year of college biology or Biological Science 161 and 161L, Biological Science 316 recommended.

The factors that affect the distribution and abundance of animals. Field techniques, statistical applications and theoretical approaches. (2 hours lecture, 6 hours laboratory or fieldwork; weekend field trips may be required)

466 Animal Behavior (3)

Prerequisite: one year of college biology. The current problems in animal behavior; sensory capacities, orientation, innate and learned patterns, and social behavior of invertebrates and vertebrates. (3 hours lecture)

466L Animal Behavior Laboratory (1)

Corequisite: Biological Science 466. Experiments in the analysis of behavioral patterns. (3 hours laboratory or fieldwork; weekend field trips may be required)

467 Entomology (4)

Prerequisite: one year of college biology. Anatomy, physiology, evolution and biology of insects and other terrestrial arthropods. Dissection, collection, identification and observation of living arthropods. (2 hours lecture, 6 hours laboratory or fieldwork; weekend field trips may be required)

468 Comparative Animal Physiology (4)

Prerequisites: one year college biology and chemistry, Biological Science 463 recommended. Organ systems and physiological processes. Comparative study of organ systems and physiological processes among representative animals. (2 hours lecture, 6 hours laboratory)

469 Hematology (4)

Prerequisites: upper-division standing and Chemistry 301A or equivalent. Blood and hemopoiesis. The functions and morphology of blood components in healthy and diseased states; hematological tests and factors affecting test reliability. (2 hours lecture, 6 hours laboratory)

474 Natural History of the Vertebrates (4)

Prerequisite: one year of college biology or Biological Science 161 and 161L. Natural history of the vertebrates. Observation, identification, behavior, ecology and distribution of the vertebrates. (2 hours lecture, 6 hours laboratory or fieldwork; weekend field trips may be required)

475 Ichthyology (4)

Prerequisite: one year of college biology. The systematics, evolution, morphology, physiology, ecology and behavior of fishes. Identification, ecology and behavior of fishes. (2 hours lecture, 6 hours laboratory or fieldwork; weekend field trips may be required)

476 Herpetology (4)

Prerequisite: one year of college biology, Biological Science 161 and 161L. The biology, structure, physiology, ecology, distribution, evolution and behavior of amphibians and reptiles. Identification, collection, study of amphibians and reptiles. (2 hours lecture, 6 hours laboratory or fieldwork; weekend field trips may be required)

480 Advanced Topics in Undergraduate Biology (1-3)

Prerequisites: upper-division students majoring in biology and consent of instructor. Current topics, updating of concepts, recent advances and unification of the principles of biology. May be repeated for credit.

490 Biological Internship (3)

Prerequisites: one year each of college biology and college chemistry; upper-division or graduate standing and consent of instructor. Biological and ecological community problems. Laboratory with individuals from public and private con-

cerns. May be repeated once for credit. (1 hour lecture/ discussion, 6 hours laboratory work experience)

491 Advanced Topics in Ocean Studies (1-4)

Prerequisite: upper-division or graduate standing in biology. Selected topics in ocean studies with an emphasis on the characteristics and problems of the local marine environment. May be repeated for credit under a different topic.

491L Laboratory Topics in Ocean Studies (1-2)

Prerequisite: upper-division or graduate standing in biology. Corequisite: Biological Science 491. Selected lab topics in ocean studies with an emphasis on the characteristics and problems of the local marine environment. May be repeated for credit under a different topic.

496 Biological Science Tutorials (1-3)

Prerequisite: senior standing in biology and consent of instructor. Supervised experience in biological science teaching through tutoring or assisting in laboratory or field class.

499 Independent Laboratory Study (1-3)

Open to undergraduate students with consent of instructor with whom the student wishes to pursue independent laboratory study in biology. May be repeated for credit.

500A Professional Aspects of Biology (1)

Prerequisite: Graduate standing and concurrent enrollment in Biological Science 500B. Discussions concerning research protocol, scientific methodology and communication techniques. Ethics and social responsibilities of professional biologists. (1 hour discussion)

500B Professional Aspects of Biology (1)

Prerequisite: Graduate standing and concurrent enrollment in Biological Science 500A. Individualized project work and experiences in scientific writing. Required of all entering thesis students. (3 hours project work)

505 Seminar in Molecular, Cellular and Physiological Biology(3)

Prerequisite: graduate standing. Selected advanced topics. May be repeated for credit.

517 Seminar in Ecological and Organismic Biology (3)

Prerequisite: graduate standing. Selected advanced topics. May be repeated for credit.

520 Seminar in Medical Technology (3)

Prerequisite: current medical technology certification. Selected advanced topics. May be repeated for credit.

521 Advanced Clinical Microbiology (3)

Prerequisite: current medical technology certification, Biological Science 423. An in-depth study of microbial pathogens and the host-parasite relationship; emphasizing the role of microbiology in controlling pathogens of current concern. (3 hours lecture)

528 Clinical Immunology (3)

Prerequisite: current medical technology certification. Clinical immunology presented from the standpoint of both pa-

tient symptomatology and laboratory diagnosis. Included will be a consideration of the current mechanisms upon which many diseases of aberrant immune functions are based. (3 hours lecture)

550 Medical Laboratory Operations (3)

Prerequisite: current medical technology certification. The medical laboratory from a financial perspective. Topics include multiple quantitative methodologies to measure: cost effectiveness of assay development, acquisition of instrumentation, workload performance analysis, income production and expense control. (3 hours lecture)

552 Instrumentation and Quality Assurance in the Clinical Laboratory (2)

Prerequisite: current medical technology certification. Theoretical principles of instrument operation and testing methodologies interrelated with the development and implementation of a quality assurance program for the clinical laboratory. (2 hours lecture)

562 Human Physiology for Medical Technologists (3)

Prerequisite: current medical technology certification. The mechanisms of human body function with emphasis on relationships between organ system physiology and clinical laboratory procedures. (3 hours lecture)

564 Clinical Pathology (2)

Prerequisite: current medical technology certification or Chemistry 430. Pathobiological basis for various tests used in the clinical laboratory. Advances in current testing for specific disease states. (2 hours lecture)

569 Advanced Clinical Hematology (2)

Prerequisite: current medical technology certification. Comprehensive approach to hematologic disorders, with emphasis on abnormal morphology of peripheral blood smears and interpretation of laboratory test results. Emphasis on body fluid cytology and recent advances in hematology. (2 hours lecture)

580 Advanced Topics in Graduate Biology (1-3)

Prerequisites: graduate standing in biology and consent of instructor. Designed to consider current research topics, experimental design and problem solving in biological systems. May be repeated for credit.

597 Clinical Project (3)

Prerequisite: Current medical technology certification. Individual research and completion of an approved investigative project.

598 Thesis (1-3)

May be repeated for a maximum of 6 units of credit.

599 Independent Graduate Research (1-3)

Open to graduate students with consent of instructor with whom the student wishes to pursue independent study in biology. May be repeated for credit.

Department of Chemistry and Biochemistry

Department Chair: Robert Belloli

Vice Chair: Bruce Weber

Department Office: McCarthy Hall 580

Programs Offered

Bachelor of Arts in Chemistry

Concentration in Biochemistry

Bachelor of Science in Chemistry

Concentration in Biochemistry

Minor in Chemistry

Master of Science in Chemistry

Emphasis in Geochemistry

Secondary Credential in Teaching (Modified Option 1)

Faculty

Robert Belloli, John Bryden, Richard Deming, James Diefenderfer, Gene Hiegel, Harvey Janota, Maria Linder, Andrew Montana, Susan A. Moore, Glenn Nagel, John Olmsted, Barbara Finlayson-Pitts, Carl Prenzlöw, Harold Rogers, Robert Spenger, Joseph Thomas, Carl Wamser, Bruce Weber, Patrick Wegner, Gregory Williams, W. Van Willis, Dorothy Pan Wong
Advisers

Undergraduate—Bruce Weber

Graduate—Gene Hiegel

INTRODUCTION

The Department of Chemistry and Biochemistry is on the approved list of the American Chemical Society.

The curriculum is planned to provide thorough instruction in the basic principles and concepts of chemistry for students who will (1) advance to graduate work in chemistry or biochemistry; (2) teach in the science programs of secondary schools; (3) seek employment in industry or government; (4) advance to medical or dental training or (5) pursue a chemistry degree or minor in support of a career in other areas such as physics, biology, geology, business and computer science.

The department offers two bachelor's degrees, the Bachelor of Science (B.S.) and the Bachelor of Arts (B.A.). Both the B.S. Degree and the B.A. degree may be obtained with a biochemistry concentration.

To qualify for either of these degrees, students must earn a C grade in all courses required for the major including prerequisites in related sciences or mathematics.

Internships

Internship in chemistry (Chemistry 490B) provides practical work experience which integrates with the student's classroom studies.

Recommended Program in General Education

Because of high unit requirements for chemistry degree programs, a student majoring in chemistry is strongly urged to consult with a chemistry faculty adviser prior to designing his/her general education package.

Upper-Division Baccalaureate Writing Requirement

Chemistry majors can meet the coursework portion of the University's upper division writing requirement by passing any of the following courses: English 301, English 360, Chemistry 355A or 355B.

BACHELOR OF SCIENCE IN CHEMISTRY

The Bachelor of Science degree is recommended for students planning to go directly into professional chemistry and for those who wish to do graduate work in physical, analytical, organic or inorganic chemistry. Students who complete this program and include an advanced course in instrumental analysis (such as Chemistry 411) will qualify for certification by the American Chemical Society.

The B.S. degree is also recommended for students planning to go directly into professional biochemistry and for students planning to attend graduate school in biochemistry or molecular biology.

Concentration in Biochemistry

Students electing advanced preparation in biochemistry should substitute Chemistry 422A,B or Chemistry 430, and Chemistry 423A,B in place of Chemistry 325, Chemistry 355B and the required upper division chemistry elective. They should also select alternative 2 of the career breadth requirements and fulfill this alternative in combination with the general education requirement in biology by taking at least 12 units of approved biology courses. Students may select from the following biological science courses: 141, 161, 302, 312, 315, 362, 405, 410, 412, 413, 424, 426, 444, 460, 464, 468.

Basic Requirements

Courses Normally Taken During the First Two Years (These courses are prerequisite to the additional required chemistry courses.):

	Units
General Chemistry (Chemistry 120A,B)	10
Organic Chemistry (Chemistry 305A,B)	10
Quantitative Chemistry (Chemistry 315)	3
Fundamental Physics (Physics 225A,B,C, 225AL,BL,CL)	12
Analytic Geometry and Calculus (Math 150A,B)	8
Total	43

Additional Required Chemistry Courses

	Units
Integrated Laboratory (Chemistry 355A,B)	6
Inorganic Chemistry (Chemistry 325)	3

Physical Chemistry (Chemistry 371A,B)	6
Career Options in Chemistry (Chem 490A)	1
Senior Research (Chemistry 495)	4
Upper-division elective	3
Total	23

The following upper-division chemistry courses are not allowable toward the upper-division elective requirement: Chemistry 300, 480A, 490B, 495, 496 and 499.

Other Requirements	Units
Calculus and Linear Algebra (Math 250A,B)	8
Advanced College Writing (English 301 or English 360)	3
Computer Programming (Engineering 205 or Computer Science 112)	3
Career breadth	9-10
Remainder of general education and elective units	35-36
Total	58

Career Breadth Requirements

The B.S. degree has additional *career* breadth requirements which must be met by alternative 1 or 2. Students intending graduate work should choose alternative 1. Courses under either alternative may be used in part to satisfy general education requirements.

1. One year (10 units) of either French, German or Russian at the introductory level.
2. Three additional elective courses (minimum of nine units) approved by the adviser. The three additional courses are intended to further the student's career objectives. They may be taken from areas such as biology, mathematics, accounting, economics, computer science, geology and physics in addition to chemistry. For students intending graduate work who have an introductory background in French, German or Russian, one of the elective courses may be an intermediate course in the language. Students electing advanced preparation in biochemistry should combine the career breadth and biological science requirements in order to take at least 12 units of approved biology courses.

BACHELOR OF ARTS IN CHEMISTRY

The Bachelor of Arts in Chemistry is offered for students who are planning careers which require a sound background in fundamental chemistry, but not at the depth of the B.S. degree. Two options are available.

Option one is particularly suited for those who plan to go into areas such as secondary education, technical sales, food processing, chemical patent law and forensic sciences. Option two, the concentration in biochemistry, provides a foundation for graduate school in biochemistry and also molecular biology when coupled with suitable electives in biology. The concentration in biochemistry is recommended for any student who is preparing for admission to a school of medicine, dentistry, pharmacy or

veterinary medicine, as well as for special training in medical technology or clinical chemistry. One year of foreign language (German, French or Russian) is recommended for those students going on to graduate work.

Basic Requirements:

Curriculum for the B.A. in Chemistry

Courses Normally Taken During the First Two Years: (These courses are prerequisite to the additional required chemistry courses):

	Units
General Chemistry (Chemistry 120A,B)	10
Organic Chemistry (Chemistry 301A,B, 302) . 8	
[Students may substitute Chemistry 305A,B (10 Units)]	
Quantitative Chemistry (Chemistry 315)	3
Elementary Physics (Physics 211A,B, 211AL,BL)	8
(Students planning to pursue graduate studies in biochemistry who are not in the B.S. program should substitute Physics 225A,B,C and 225AL, BL,CL for Physics 211A,B and 211AL,BL and Chemistry 371A,B for 361A,B. Students who are candidates for professional schools such as medicine and dentistry, graduate school in biology or a teaching credential in physical science should also substitute Physics 225A,B,C.	
Analytic Geometry and Calculus (Math 150A,B)	8
Total	37

Additional Required Chemistry Courses

(Option One)

	Units
Integrated Laboratory (Chemistry 355A)	3
Inorganic Chemistry (Chemistry 325)	3
Introduction to Physical Chemistry (Chemistry 361A,B)	6
Career Options in Chemistry (Chemistry 490A) .	1
Senior Research (Chemistry 495)	2
Total	15

Other Requirements (Option One)

Units

Advanced College Writing (English 301 or 360)	3
Computer Programming (Engineering 205 or Computer Science 112)	3
Remainder of general education and elective units	66
Total	72

Additional Required Chemistry Courses (Option Two—concentration in biochemistry)

Units

General Biochemistry (423A,B)	6
General Biochemistry Laboratory (422A,B) . .	4
Career Options in Chemistry (490A)	1
Introduction to Physical Chemistry (361A,B) .	6
Senior Research (495)	2
Total	19

Other Requirements (Option Two—concentration in biochemistry)

Units

Advanced College Writing (English 301 or English 360)	3
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Computer Programming (Engineering 205 or Computer Science 112)	3
Biological Science	12
(Students may select from the following biological science courses: 141, 161, 302, 312, 315, 362, 405, 410, 412, 413, 424, 426, 444, 460, 464, 468.)	
Remainder of general education and elective units	50
Total	68

MINOR IN CHEMISTRY

A minor in Chemistry requires a minimum of 24 acceptable units of chemistry, including general chemistry (Chemistry 120A,B) plus 14 units of upper-division chemistry courses. (The following upper-division chemistry courses are not applicable toward a minor: Chemistry 300, 480A, 490A, 490B, 495, 496 and 499). These courses must be completed with an overall GPA of 2.0.

The chemistry minor is appropriate for students majoring in a number of areas. Some upper-division course combinations which constitute appropriate minors are: Medical Technology: Chemistry 301A,B, 302, 351, 352, 430. Molecular Biology: Chemistry 301A,B, 302, 421A,B. Geological Sciences: Chemistry 301A, 315, 361A,B or 325. Physics: Chemistry 301A,B, 315, 371A,B. Science Education: Chemistry 301A,B, 361A,B, 325. Other areas where a minor in chemistry would be appropriate include Art Restoration, Forensic Science, Industrial Administration, Science Writing, and Environmental or Patent Law. Students with interests in these or other areas should consult the chemistry undergraduate adviser about courses appropriate for a minor.

REQUIREMENTS FOR CHEMISTRY MAJORS SEEKING A TEACHING CREDENTIAL

To qualify for a waiver from the examination for a single subject credential in Physical Science, students should elect the B.A. under option one with the following changes:

1. Students should take Science Education 312 instead of Chemistry 495, Senior Research.
2. Students must take two of: Biological Sci 101 (and 101L), 141 (and 141L), and 161 (and 161L).
3. Students must take Physics 225A,B,C and 225AL, BL,CL instead of Physics 211A,B and 211AL,BL.
4. Students must take these additional courses: Geological Sci 101,101L, and 201 and Physics 200.

MASTER OF SCIENCE IN CHEMISTRY

The degree is designed to qualify students for more advanced work in chemistry, to provide preparation which will lead to responsible positions in industrial or government research and development laboratories, and to provide preparation for the effective teaching of chemistry in the high schools and community colleges.

The program provides fundamental courses at a level and depth commensurate with those taken during the first year of a doctoral program and provides an introduction to research and research methods.

Admission

Students must meet the university requirements for admittance to the university. This normally requires a baccalaureate degree from an accredited institution and a grade-point average of at least 2.5 in the last 60 semester units attempted. (See the section of this catalog on Graduate Admissions for a complete statement and procedures.) In addition to university requirements, in order to achieve conditionally classified standing in the chemistry program, a student must meet the following requirements:

1. An undergraduate degree in chemistry or a selection of science courses deemed as adequate preparation for further study in chemistry by the Department Graduate Committee; and
2. A 2.5 GPA in upper division chemistry courses.

Classified Standing

Each student is required to take qualifying examinations in the areas of physical and organic chemistry plus two from the areas of analytical, inorganic or biochemistry. The results of these examinations are used in advising the student and as criteria for advancement to classified standing. In order to proceed from conditionally classified to classified standing, the student must meet the following requirements:

1. Satisfactory grades on three of the four qualifying examinations or completion of department approved courses in these areas with grades of B or better;
2. Approved selection of a research director; and
3. An approved study plan.

The department's foreign or computer language requirement, to be demonstrated before advancement to candidacy, may be met in any one of the following ways: (1) by passing 10 semester units of an approved foreign language (e.g., Chinese, French, German, Japanese or Russian) at the college level; (2) by passing an approved challenge examination in a foreign language; or (3) by passing Engineering 205, Digital Computation, and Engineering 403, Computer Methods in Numerical Analysis, or (4) by passing Computer Science 112, Introduction to Computer Programming, and a second semester of Computer Science experience approved by the graduate adviser and the Internal Affairs Committee.

Study Plan

Two alternatives are available for the study plan. The student can do either a laboratory thesis (preferred) or a library thesis.

The degree program consists of 30 units of graduate committee-approved course work completed with a minimum grade-point average of 3.0 in all course work exclusive of Chemistry 505A,B and 599. Each student prepares a study plan in consultation with his research director which must be approved by the graduate program adviser, the department, and the dean of graduate studies. All chemistry courses on the study plan must be 400 level or above.

Study plans may contain no more than 2 units of Chemistry 505, and no more than 6 units of Chemistry 599 (3 units for students electing the library thesis alternative).

Units

1. Basic requirements

Courses required of all students:

Chemistry 505A,B Seminar	2
Chemistry 599 Independent Graduate Research	3
Chemistry 598 Thesis	1-6

2. 500-level Requirements

Each student is required to take at least two 500-level courses other than those listed above. A minimum total of 15 units of 500-level courses is required.

3. Specialization Requirements

The courses in the study plan must include a minimum of nine units (not including Chemistry 505A,B, 598, 599) in one of the following areas of specialization, including related areas: (1) analytical chemistry; (2) biochemistry; (3) inorganic chemistry; (4) organic chemistry; (5) physical chemistry.

4. Breadth Requirements

In order to insure sufficient breadth and background, one course is required from each of the following groups if the student has not passed (with a B or better) an equivalent course as an undergraduate. However, courses taken as an undergraduate cannot be applied to the 30 units required for graduation, unless they are in excess of the undergraduate degree requirement.

Units

Group I—

Chemistry 411 Instrumental Analysis	4
Chemistry 425 Advanced Inorganic Chemistry	3

Group II—

Chemistry 423A General Biochemistry	3
Chemistry 431 Advanced Organic Chemistry	3

Group III—

Chemistry 550 Advanced Thermodynamics	3
Chemistry 551 Quantum Chemistry	3

[Students specializing in biochemistry may, upon approval of the graduate adviser, substitute Chemistry 543, Physical Biochemistry, in place of 550 or 551; but in that case, 543 may not be applied toward the specialization requirement (3 above).]

Course work applicable to the areas of nutritional biochemistry, clinical chemistry, trace analysis and toxicology is available and may be planned in consultation with the graduate adviser of the Chemistry Department. For further details or advisement concerning the M.S. program, contact the graduate adviser.

Emphasis in Geochemistry

This option is designed for students with a solid base in chemistry and geology; who are preparing either for continuation of studies toward a Ph.D. in geochemistry, or for direct job entry as a geochem-

ist. The aggregate of courses is designed to provide the depth and breadth of fundamentals required for a successful career in geochemistry.

Prerequisites

The prerequisites are the same as for the M.S. degree in chemistry except that to achieve conditionally classified standing, a student must meet the following requirements:

1. An undergraduate degree in either chemistry or geology (or equivalent title), with at least 20 semester units in geology for the chemist and 26 semester units in chemistry for the geological scientist, or a combination of chemistry and geology courses which the geochemistry graduate committee deems to be adequate preparation.
2. A 2.5 GPA in upper-division chemistry and geology courses.

Each student is required to take qualifying examinations in the areas of physical chemistry and geology plus two from the areas of analytical chemistry, inorganic chemistry, or organic chemistry. See the M.S. degree in chemistry for additional prerequisites.

Study Plan

The study plan for the degree is the same as for the M.S. in Chemistry with changes of items 3 and 4 as follows:

3. Specialization Requirements

The courses in the study plan must include a minimum of nine units (not including Chemistry 505A,B, 598, 599) in the area of specialization with at least six of these units at the 500 level. Courses in the area of specialization must be taken from both geology and chemistry and must include either Geological Sciences 406 or 506. Courses appropriate for a specialization in geochemistry are as follows:

Area of Specialization (9 units)	Units
A. [Geological Sci] 506—Topics in Geochemistry	
Isotope Geochemistry	3
Aqueous Geochemistry	3
Crystal Chemistry	3
Solid Phase Geochemistry	3
Geochemical Exploration	3
B. 500-Level Chemistry	
Chemistry 511 Theory of Separations	3
Chemistry 580 Topics in Advanced Chemistry	3
C. Undergraduate Courses	
Geological Sci 406 Geochemistry	3
Geological Sci 407 Instrumental Methods in Geological Sciences	3

4. Breadth Requirements

In order to ensure sufficient breadth and background, each student is required to take one course from each of the following groups if he/she has not passed with a B or better an equivalent course as an undergraduate. However, courses taken as an undergraduate cannot be applied to the 30 units required for graduation.

Units

Group I—

Chemistry 411 Instrumental Analysis	4
Chemistry 425 Advanced Inorganic Chemistry	3
Geological Sci 400 Optical Methods	3

Group II—

Chemistry 423A General Biochemistry	3
Chemistry 431 Advanced Organic Chemistry 3	

Group III—

Chemistry 550 Advanced Thermodynamics	3
Chemistry 551 Quantum Chemistry	3

For further details or advisement, please contact the graduate adviser of the Chemistry Department or the Geological Sciences Department.

Chemistry and Biochemistry Courses

100 Survey of Chemistry (3)

Prerequisite: one year of high school algebra. The fundamental principles of chemistry; atomic and molecular structure and the application of these principles to contemporary problems. For the nonscience major. (3 hours lecture) (Instructional materials fee required.)

100L Survey of Chemistry Laboratory (1)

Prerequisite: concurrent enrollment in Chemistry 100. Experiments chosen to develop laboratory techniques; chemical principles and their application to environmental and societal problems. (3 hours laboratory). (Fee required)

111 Nutrition and Drugs (3)

The basics of nutrition; diet, food additives, vitamins, hormones, drugs, disease and related biochemical topics. Current controversies, popular practices, fads and fallacies. For the non-science major. (3 hours lecture)

115 Introductory General Chemistry (4)

Prerequisite: one year of high school algebra. Chemistry at the basic level. For students with limited background in chemistry who plan to take additional chemistry or other science courses. Does not fulfill chemistry requirements for majors or minors in the physical or biological sciences. (3 hours lecture, 3 hours laboratory) (Instructional materials fee required.)

120A,B General Chemistry (5,5)

Prerequisites: passing score on the Chemistry Placement Examination (generally requires two years of high school algebra plus one year of high school chemistry with a grade of B or better) or Chemistry 115 with a grade of C or better. High school physics strongly recommended. For majors and minors in the physical and biological sciences. **A**—The principles of chemistry: stoichiometry, acids, bases, redox reactions, gas laws, solid and liquid states, changes of state, modern atomic concepts, periodicity and chemical bonding. Laboratory: elementary physical chemistry and volumetric quantitative analysis. (3 hours lecture, 6 hours laboratory) **B**—Chemical thermodynamics, chemical equilibrium (gaseous, aqueous, acid-base, solubility and complexation), elementary electrochemistry and chemical kinetics. Laboratory: quantitative analysis and elementary physical chemistry; some qualitative analysis. (3 hours lecture, 6 hours laboratory) (Instructional materials fee required.)

125 General Chemistry for Engineers (3)

Prerequisites: Chemistry 120A and a major in engineering. The topics are the same as Chemistry 120B but without laboratory. Not open to students with credit in Chemistry 120B. (3 hours lecture).

196 Student-to-Student Tutorials (1-3)

Supervised experience in chemistry teaching through tutoring or assisting in lower-division laboratory or field classes. Consult "Student-to-Student Tutorials" in this catalog for prerequisites and a more complete course description.

295 Directed Study (1)

Prerequisite: consent of instructor. Research in chemistry under the supervision of a chemistry department faculty member. Credit/no credit only. May be repeated for credit. Does not count towards major. All undergraduate students engaged in a chemistry research project must be enrolled in either Chemistry 295 or 495. (3 hours laboratory per unit)

300 Introductory Organic and Biochemistry (3)

Prerequisites: Chemistry 115 or equivalent, plus a passing score on a qualifying exam. Not open to Chemistry majors. Qualifying examination includes inorganic chemistry and organic chemistry of alkanes and alkenes. Course includes a review of hydrocarbons, a study of major functional groups, and an introduction to the chemistry and metabolism of carbohydrates, proteins, lipids and nucleic acids. (3 hours lecture) (Instructional materials fee required.)

300L Introductory Organic & Biochemistry Laboratory (1)

Corequisite: Chemistry 300. Not open to chemistry majors. Laboratory designed to illustrate the chemistry of carbohydrates, lipids, proteins and nucleic acids, and to introduce some methods in clinical chemistry. (3 hours laboratory) (Fee required)

301A,B Organic Chemistry (3,3)

Prerequisite: Chemistry 120A,B. Properties and reactions of aliphatic and aromatic compounds, theories of structure, and reaction mechanisms. For the nonchemistry major or for a B.A. in Chemistry. (3 hours lecture)

302 Organic Chemistry Laboratory (2)

Prerequisite: Chemistry 301A. Corequisite: Chemistry 301B. Techniques for the synthesis, characterization and isolation of typical aliphatic and aromatic compounds. (6 hours laboratory) (Instructional materials fee required.)

302A,B Organic Chemistry Laboratory (1,1)

Chemistry 302A must be taken concurrently with Chemistry 301A. Techniques for the synthesis, isolation and characterization of typical aliphatic and aromatic compounds. Students wishing to fulfill all of their organic chemistry laboratory requirements in a single semester should enroll in Chemistry 302. (Instructional materials fee required.)

303 Survey of Organic Chemistry (5)

Prerequisites: Chemistry 120A,B or equivalent. A brief coverage of organic chemistry in a single semester for nonmajors. Lecture covers basic principles of organic structure and reactivity and the chemistry of the major functional groups; laboratory includes fundamental techniques of manipulating, purifying and identifying organic compounds. (4 units of lecture, 1 unit laboratory)

305A,B Organic Chemistry (5,5)

Prerequisite: Chemistry 120A,B. Lecture: properties and reactions of aliphatic and aromatic compounds, theories of structure, and reaction mechanisms. Laboratory: techniques

for the synthesis, characterization and isolation of typical aliphatic and aromatic compounds, with applications of instrumental and spectroscopic methods. Designed for students in the B.S. program. (3 hours lecture, 6 hours laboratory) (Instructional materials fee required.)

312 Survey of Analytical Chemistry (4)

Prerequisites: Chemistry 301A. Physics 211A,B or 225A,B recommended. Modern analytical chemistry for non-chemistry majors. A review of aqueous ionic equilibrium, introduction to various instrumental methods of analysis, including electrochemistry, UV-visible absorption spectrophotometry, and chromatography. (2 hours lecture, 6 hours laboratory)

315 Theory of Quantitative Chemistry (Lecture) (3)

Prerequisite: Chemistry 301A or 305A. Physics 211A,B or Physics 225A,B strongly recommended. Modern analytical chemistry; aqueous and nonaqueous equilibrium calculations, electrochemistry, spectrometry, and contemporary separation methods with emphasis on chromatography. (3 hours lecture)

325 Inorganic Chemistry (3)

Prerequisites: Chemistry 301A,B or 305A,B. The chemistry of the main group elements and an introduction to transition metal chemistry. (3 hours lecture)

351 Introduction to Biochemistry (3)

Prerequisites: one year of organic chemistry (Chemistry 301A,B and 302) and one introductory course in biology. A survey of the chemical reactions in living systems; the metabolism of carbohydrates, lipids and proteins. Not acceptable for the biochemistry requirements of the B.S. and B.A. programs. (3 hours lecture)

352 Introductory Biochemistry Laboratory (1)

Prerequisites: Chemistry 301B and 302, or Chemistry 305B. Corequisite: Chemistry 351, 421A or 423A. Introduction to quantitative biomedical methods, instrumentation and experimentation, with emphasis on enzymology and metabolic experiments. (3 hours laboratory) (Instructional materials fee required.)

355A,B Integrated Laboratory (3,3)

Prerequisite: Chemistry 301A,B and 302, or Chemistry 305A,B. Corequisites: Chemistry 315 for 355A; Chemistry 361B or 371B and Computer Science 112 or the equivalent for 355B. Experiments in chemical synthesis, instrumental analysis and physical chemistry. Laboratory training and written presentation of theory, data and results are emphasized. (1 hour lecture, 6 hours laboratory) (Instructional materials fee required.)

361A,B Introduction to Physical Chemistry (3,3)

Prerequisites: Mathematics 150A,B; Physics 211A,B or 225A,B, Chemistry 301A,B or 305A,B. Thermodynamics and kinetics; properties of gases and solutions; molecular structure and energies and application to spectroscopic techniques; liquids, phase equilibria, thermodynamics of multi-component systems with application to the life sciences. (3 hours lecture)

371A,B Physical Chemistry (3,3)

Prerequisites: Mathematics 250, Physics 225A,B and Chemistry 305A,B. Thermodynamics, solutions, chemical and phase equilibria, electrochemistry, transport phenomena, introduction to atomic and molecular structure, rotation and vi-

- bration spectroscopy, statistical mechanics, kinetics. The use of fundamental principles to solve problems. (3 hours lecture)
- 33 Analysis of Organic Compounds (4)**
Prerequisites: Chemistry 301A,B and 302 or 305A,B. Chemistry 355A. Isolation and identification of organic compounds using chemical and instrumental techniques. (2 hours lecture, 6 hours laboratory) (Instructional materials fee required.)
- 31A-F Instrumental Analysis (1-4)**
Prerequisites: Chemistry 315 and 355A or 422A; or Chemistry 312. Corequisite: Chemistry 371B or 361B. 1 unit modules: **A** Optical Spectroscopy (UV/visible, infrared, atomic absorption, flame emission); **B** Magnetic Resonance (nuclear magnetic resonance, electron spin resonance); **C** Separations (high performance liquid chromatography, gas chromatography/mass spectrometry); **D** Electrochemistry (polarography (d.c., pulse, a.c.), cyclic voltammetry, coulometry); **E** Radiochemistry; **F** Computers and Interfacing. Students wishing an ACS approved degree must take three units. (2 hours lecture, 6 hour laboratory) (Instructional materials fee required.)
- 31A,B Biological Chemistry (3,3)**
Prerequisite: Chemistry 301A,B and Chemistry 302. Corequisite: Biology 315. Major areas of biochemistry, including chemistry and functions of compounds of biochemical interest. Mechanisms and thermodynamics of intermediary metabolism. Biochemical foundations of the health sciences. Designed for biology majors. (3 hours lecture)
- 32A,B General Biochemistry Laboratory (2,2)**
Prerequisites: concurrent or prior enrollment in Chemistry 421A,B or 423A,B. The chemistry and metabolism of carbohydrates, nucleic acids, lipids and proteins; techniques of enzyme chemistry and isolation; research methods. (6 hours laboratory) (Instructional materials fee required.)
- 33A,B General Biochemistry (3,3)**
Prerequisites: Chemistry 301A,B and 302 or Chemistry 305A,B; Chemistry 315. Corequisite: Chemistry 361A or 371A. Survey of biochemistry; structural chemistry and function of biomolecules, bioenergetics and intermediary metabolism; replication and expression of the genetic material. Designed for chemistry majors. (3 hours lecture)
- 35 Advanced Inorganic Chemistry (3)**
Prerequisites: Chemistry 325 and 361A,B or 371A,B. The bonding, structure and reactivity of transition and lanthanide elements. Molecular orbital and ligand field theory, classical metal complexes and organometallic chemistry of the transition elements. (3 hours lecture)
- 30 Clinical Chemistry (4)**
Prerequisites: Chemistry 351 and 352 or Chemistry 422A. Biochemistry of disease, principles, practice and theory behind tests performed in the clinical laboratory to assess human health. (2 hours lecture, 6 hours laboratory) (Instructional materials fee required.)
- 31 Advanced Organic Chemistry (3)**
Prerequisites: Chemistry 361A,B or 371A,B. Theoretical and physical aspects of organic chemistry. The modern concepts of structure, and reaction mechanisms. (3 hours lecture)
- 30A Topics in Contemporary Chemistry (1)**
Prerequisite: upper-division standing in chemistry. Research seminar dealing with topics of current interest in chemistry
- such as photochemistry, biochemistry, analytical chemistry and organometallic chemistry. Credit/no credit only. Not applicable toward master's degree. May be repeated for credit.
- 480B Topics in Contemporary Chemistry (2-3)**
Prerequisite: upper-division standing in chemistry. Special lecture topics of current interest in chemistry. May be repeated for credit. (1 hour lecture per unit)
- 490A Career Options in Chemistry (1)**
Prerequisites: upper-division standing in chemistry; Chemistry 355A or 422A; and consent of instructor. Career options in chemistry. Credit/no credit only. (1 hour lecture)
- 490B Internship in Chemistry (1-2)**
Prerequisites: upper-division standing in chemistry; Chemistry 355A or 422A; and consent of instructor. Internship in chemistry. Work in projects in industrial, governmental or medical laboratories. May count as career breadth requirement units for chemistry majors. May be repeated once. Does not count toward M.S. degree.
- 495 Senior Research (1-3)**
Prerequisites: three one-year courses in chemistry, senior standing and consent of instructor. The methods of chemical research through a research project under the supervision of one of the Chemistry Department faculty. May be repeated for credit. Only 6 units may apply toward B.A. or B.S. degree (3 hours per week per unit)
- 496 Student-to-Student Tutorials (1-3)**
Supervised experience in chemistry teaching through tutoring or assisting in laboratory or field classes. Consult "Student-to-Student Tutorials" in this catalog for prerequisites and a more complete course description.
- 499 Independent Study (1-3)**
Prerequisites: upper-division standing and completion of two one-year courses in chemistry. Special topics in chemistry selected in consultation with the instructor and approval of department chair. May be repeated for credit. Only six units may apply toward B.A. or B.S. degree.
- 505A Seminar (Participation) (1)**
Prerequisites: graduate standing and consent of department. Student attendance at presentations by invited scientists on topics of current interest in chemistry. May not be repeated for credit. (1 hour seminar)
- 505B Seminar (Presentation) (1)**
Prerequisites: Chemistry 505A, graduate standing and consent of the department. Student presentation of recent contributions to the chemical literature. May not be repeated for credit. (1 hour seminar)
- 511 Theory of Separations (3)**
Prerequisites: Chemistry 355A and 361A,B or 371A,B. The theory, application and limitations of physical and chemical separation techniques; chromatography. (3 hours lecture)
- 512 Electroanalytical Chemistry (4)**
Prerequisites: Chemistry 355A and 361A,B or 371A,B. Potentiometry, amperometry, electroanalysis, coulometry, conductometry, polarography, single and multiple sweep voltammetry, chronopotentiometry and chronoamperometry. (2 hours lecture, 6 hours laboratory) (Fee required)
- 527 Advanced Synthetic Techniques (3)**
Prerequisites: Chemistry 355A and 325. Advanced techniques of inorganic, organic and organometallic synthesis

utilizing anaerobic and vacuum line techniques. Instrumental characterization of products and readings in the current literature required. (1 hour lecture, 6 hours laboratory) (Instructional materials fee required.)

535 Organic Synthesis (3)

Prerequisite: Chemistry 371A,B. Methods of synthetic organic chemistry and their application to construction of organic molecules. Recent developments. (3 hours lecture)

539 Chemistry of Natural Products (3)

Prerequisite: Chemistry 301A,B or 305A,B. The chemistry of the alkaloids, terpenes, steroids and other natural products of plant and animal origin. (3 hours lecture)

540 Chemistry of Proteins (3)

Prerequisite: Chemistry 421A or 423A. Theory and practice of the chemical modification of proteins; methods of protein structural analysis; comparative structural chemistry and evolution of proteins. (3 hours lecture)

543 Physical Biochemistry (3)

Prerequisites: Chemistry 361A,B or 371A,B, 421A,B or 423A,B or consent of instructor. Methods for measuring physical properties of proteins and nucleic acids in solution. Thermodynamic and hydrodynamic aspects. (3 hours lecture)

546 Metabolism and Catalysis (3)

Prerequisite: Chemistry 421A,B or 423A,B or consent of instructor. Regulation of biosynthetic and degradative reactions in living systems. The control of enzyme activity and concentration. Mechanisms of hormone action. (3 hours lecture)

550 Advanced Thermodynamics (3)

Prerequisite: Chemistry 371A,B. Advanced chemical and statistical thermodynamics. (3 hours lecture)

551 Quantum Chemistry (3)

Prerequisite: Chemistry 371A,B. Postulates and theories of approximation methods in quantum chemistry, the electronic structure of atoms and molecules, chemical bonds, group theory and applications. (3 hours lecture)

580 Topics in Advanced Chemistry (1-6)

Prerequisites: graduate standing in chemistry. Current research topics in chemistry in the areas of analytical, organic, inorganic, physical and biochemistry. May be repeated for credit. (1 hour seminar per unit)

598 Thesis (1-6)

Prerequisite: an officially appointed thesis committee. Guidance in the preparation of a thesis for the master's degree.

599 Independent Graduate Research (1-6)

Prerequisite: graduate standing in chemistry. May be repeated for credit

Department of Geological Sciences

Department Chair: John Ryan
Department Office: McCarthy Hall, 263

Programs Offered

Bachelor of Science in Geology

Minor in Geology

(Master of Science in Chemistry, Geochemistry Emphasis, offered jointly by the Departments of Chemistry and Geological Sciences)

Faculty

Gerald Brem, John Cooper, Neil Maloney, Brady Rhodes, John Ryan, Prem Saint, Margaret Woyski

Advisers

B.S. in Geology: John Ryan, for initial advisement. Geochemistry Emphasis, M.A. in Chemistry: Harvey Janota (Department of Chemistry); Margaret Woyski, Geological Sciences. All students *must* receive advisement immediately upon entering the major in order to design a course progression. First-year students must meet with their adviser at least twice during that year. All others must be advised at least once a year. The adviser also acts to assist the student should problems arise.

INTRODUCTION

Geological sciences is the study of the earth, its physical nature, chemical composition and dynamics, as well as its origin, evolution, present state and future. In addition to the quest for understanding the way the earth works and its relation to the solar system, geological scientists are deeply involved in the search for energy, mineral and water resources, and the prevention and/or prediction of natural disasters such as earthquakes, volcanic eruptions, landslides, coastal erosion, and floods. About 60% of all geological scientists are employed by private industry, primarily by petroleum, mining and engineering companies. Others are employed by government agencies and research centers.

Within the general field of geological sciences the department has five major areas of study: geology, geochemistry (the integration of geology and chemistry), geophysics (the integration of geology and physics), hydrogeology (the integration of geology with fresh water systems), and geological oceanography. All are designed to prepare students for (1) graduate studies in the geological sciences, (2) direct employment in industry or government, (3) teaching, and (4) an avocation and an appreciation and understanding of the earth.

Internships

The department offers an internship program through Geological Sciences 490. This permits the

student to obtain on-the-job experience in the geological sciences. Three units maximum are permitted toward the degree.

Recommended Program in General Education

The department maintains a list of preferred general education courses. A copy can be obtained by visiting or telephoning the department office.

BACHELOR OF SCIENCE IN GEOLOGY

Of the 130 units required for graduation, 43 are in geological sciences, 34 to 37 in related fields, 42 in general education courses (other than related fields) and the remaining 8 to 11 undesignated units are selected to meet particular needs of each student. To qualify for the B.S. degree, students must have a C or better in all geological sciences courses taken to meet the 43 unit requirement; students must have a C average in required courses in related fields. A proficiency in a modern foreign language, or a computer language, is recommended for students who plan to continue in graduate school. Proficiency in English composition is required.

Minimum Course Requirements for the Major

- Geol Sciences 101, 101L Phys. Geology (3,1)
- Geol Sciences 201 Earth History (4)
- Geol Sciences 303A,B Mineralogy & Petrology (3,4)
- Geol Sciences 321 Sedimentation and Stratigraphy (4)
- Geol Sciences 360 Structural Geology (3)
- Geol Sciences 380 Geol. Field Techniques (3)
(Meets requirement for upper-division writing course.)
- Geol Sciences 498 Senior Thesis (1-2)
(taken in conjunction with elective)

One course from the following:

- Geol Sciences 333 Oceanography (3)
- Geol Sciences 335 General Hydrology (3)
- Geol Sciences 356 Introduction to Applied Geophysics (3)
- Geol Sciences 406 Geochemistry (3)

One course from the following:

- Geol Sciences 435 Hydrology Field Camp (4)
- Geol Sciences 481 Geology Field Camp (4)

Adviser-approved Geol Sciences electives (9-10 units)

No more than 4 units from any combination of Geol Sciences 490, 496L and 499L can be counted toward meeting this 9-10 unit requirement.

(Note: Geol Sciences 120, 120L, 140, 310, and 376 are not accepted as credit toward meeting requirements for the major.)

Minimum Requirements in Related Fields. (nine courses required, 34-37 units)

Biological Science 101, Elements of Biology (3);
or 141, 141L, Principles of Botany (2,2);
or 161, 161L, Principles of Zoology (2,2)

Chemistry 120A and 120B, General Chemistry (5,5)

Comp Sci 112, Introduction to Computer Programming (3); Engineering 205, Digital Computation (3)
or

Mathematics 150A and 150B, Analytic Geometry and Calculus (4,4); or 130, Short Course in Calculus (4), and 338, Statistics Applied to Natural Sciences (3), with consent of adviser.

Physics 225A, 225AL, Fundamental Physics—Mechanics (3,1) and either 225B, 225BL, Fundamental Physics—Electricity and Magnetism (3,1), or 225C, 225CL, Fundamental Physics—Modern Physics (3,1). Alternatively, 211A, 211AL, 211B, 211BL, Elementary Physics (3,1,3,1), with consent of adviser.

One additional semester course selected with approval of adviser from courses such as the following:

- Biological Science 316, 401, 406, 419, 461, 463
- Chemistry: 301A, 315, 325, 361A
- Computer Science: 241
- Engineering: 102, 202, 301, 304, 324, 436
- Geography: 312, 381, 384, 412
- Mathematics: 250A, 250B, 338
- Physics: 225B, 225BL, 225C, 225CL, 310, 320, 330, 410, 411

Undesignated Units (8-11 units required)

These are to be taken in geological sciences, related fields and/or career support fields, with adviser approval.

General Education (42 units required, other than related fields)

Consult your adviser for proper course selection.

MINOR IN GEOLOGICAL SCIENCES

A minimum of 20 units in geological sciences courses, of which at least 12 must be upper division and at least 6 of these 12 must be taken in residence, is required for a minor. The courses shall be selected by the student in consultation with an adviser. Prospective teachers should include courses in physical geology, earth history, meteorology, oceanography, mineralogy and petrology. Geological Sciences 120, 120L, 140, 310 and 376 are not acceptable as part of the 20 units.

Credentials Program

To qualify for a waiver from the examination for a Single Subject Credential in Physical Science, the following courses are required in addition to those for the B.S. degree in Geology:

- Chemistry 301A,B.
- Physics 225A,B,C, 225AL,BL,CL, and 200.
- Geological Sciences 340.
- Two of: Biological Sci 101 (and 101L), 141 (and 141L), and 161 (and 161L).

MASTER OF SCIENCE IN CHEMISTRY, GEOCHEMISTRY EMPHASIS

See Master of Science in Chemistry section of this catalog.

Geological Sciences Courses

For all courses, prerequisites may be waived if the instructor is satisfied that the student is qualified to take the course.

All lower-division (100-200 level) courses are offered each semester. The department plans to offer in 1987-89 Geological Sciences 303A, 304, 360 and 380 each fall, Geological Sciences 303B, 321, 335 and 481 each spring and the remaining courses on a three to four semester rotation. Consult the department for details.

101 Physical Geology (3)

Prerequisite: high school chemistry or physics, or equivalent. The physical nature of the planet earth, the genesis of rocks and minerals, erosion processes and their effects. (Fee required for optional field trip.)

101H Physical Geology (Honors) (3)

Prerequisite: high school chemistry or physics, or equivalent. The physical nature of the planet earth, the genesis of rocks and minerals, erosion processes and their effects. (Weekend field trips)

101L Physical Geology Laboratory (1)

Corequisite: Geological Sciences 101. Laboratory on minerals, rocks, earthquakes, and map and aerial photographic interpretation. (3 hours laboratory or field trip)

101LH Physical Geology Laboratory (Honors) (1)

Corequisite: Geological Sciences 101 or 101H. Laboratory on minerals, rocks, earthquakes, and map and aerial photographic interpretation. (3 hours laboratory and weekend field trips)

120 Introduction to Earth Science (3)

The nature of our planet, its place in space, its atmosphere and oceans, its interior, and its changing surface. Fee required for optional field trip.

120L Earth Science Laboratory (1)

Corequisite: Geological Sciences 120. Rock and mineral identification, fluvial and marine processes, land-form recognition from topographic maps, geologic maps, air and space photographs. (3 hours laboratory)

140 Earth's Atmosphere (3)

The composition, structure and circulation of the atmosphere; the origins of storms and other weather disturbances.

201 Earth History (4)

Prerequisite: Geological Sciences 101, 101L. Evolution of the earth as interpreted from rocks, fossils and geologic structures. Plate tectonics provides a unifying theme for consideration of mountain building, evolution of life and ancient environments. (2 hours lecture, 6 hours laboratory, 1 or 2 field trips)

303A Mineralogy and Introduction to Petrology (3)

Prerequisites: Geological Sciences 101, 101L, Chemistry 120A; concurrent enrollment in Geological Sciences 304 recommended. Crystallography; origin, occurrence, composition and identification of minerals; rock-forming minerals. (2 hours lecture, 3 hours laboratory, field trip)

303B Igneous and Metamorphic Petrology (4)

Prerequisites: Chemistry 120A; Geological Sciences 303A; Geological Sciences 380 highly recommended. Description, classification, occurrence and origin of igneous and metamorphic rocks. (2 hours lecture, 6 hours laboratory, field trips)

304 Mineral Recognition (1)

Prerequisite or corequisite: Geological Sciences 303A or equivalent. Laboratory practice in recognition and identification of minerals and crystals. (3 hours laboratory, field trip)

310 Topics in California-Related Geology (1-3)

Directed investigations of one aspect of earth science. Alternating topics are: geology of national parks, California geology, ocean off California, California earthquakes, ancient life and minerals. May be repeated for credit with a different topic.

321 Sedimentation and Stratigraphy (4)

Prerequisites or corequisite: Geological Sciences 201, 303B; 380 highly recommended. Textural, mineralogic properties of sediments used in discrimination of depositional conditions, environments, classification of sedimentary rocks, study of stratigraphic patterns. (2 hours lecture, 6 hours laboratory, field trips)

322 Principles of Paleontology (3)

Prerequisites: Geological Sciences 201; Biology 101 or 161 or equivalent. The groups of organisms that have left an important fossil record. Taxonomy, morphology and systematics, biostratigraphy, paleoecology, and evolutionary trends. (2 hours lecture, 3 hours laboratory, field trips)

333 Oceanography (3)

Prerequisite: Geological Sciences 101; Mathematics 150A or 130; Physics 225A, 225AL or 211A, 211AL. The chemical, physical and geological nature of the oceans. (2 hours lecture, 3 hours laboratory, one cruise, and one coastal field trip)

335 General Hydrology (3)

Prerequisites: Geological Sciences 101; Mathematics 150A or 130; Physics 225A, 225AL or 211A, 211AL. Nature, occurrence, movement of surface and groundwater. Rainfall/runoff relationships, floods, aquifer evaluation; and water quality investigation. (2 hours lecture, 3 hours laboratory, field trip)

340 General Meteorology (3)

Prerequisites: Geological Sciences 101; Mathematics 150A or 130; Physics 225A, 225AL or 211A, 211AL. Atmospheric processes, composition and structure. Radiation, thermodynamics of moist air, precipitation mechanisms, atmospheric dynamics. Map analysis and use of thermodynamic diagrams.

355 Earth's Interior (3)

Prerequisites: Physics 211A, 211AL or 225A, 225AL; Chemistry 120A or equivalent. Geophysical, geochemical properties of mantle and core. Data collection techniques. Impact of internal processes on crustal/surface phenomena.

356 Introduction to Applied Geophysics (3)

Prerequisites: Geological Sciences 101, 101L; Physics 211A, 211AL or 225A, 225AL. Seismic refraction, gravity, magnetic and electrical techniques and fundamentals as applied to determination of subsurface structure, groundwater and location of mineral resources. (2 hours lecture, 3 hours laboratory, field)

360 Structural Geology (3)

Prerequisites: Geological Sciences 303A,B; Physics 211A, 211AL or 225A, 225AL. Faults, folds, mechanics of rock deformation, and elementary tectonics; solution of problems by geometric, trigonometric and stereographic analysis. (2 hours lecture, 3 hours laboratory, field trips)

370 Urban Geology and Planning (3)

Prerequisites: Geological Sciences 101 or equivalent. Geological hazards and man's interaction with earth processes and earth resources. Environmental planning and management. (2 hours lecture, 3 hours laboratory or field)

375 Engineering Geology (3)

Prerequisites: Geological Sciences 380; Mathematics 150A; Physics 211A, 211AL. Engineering properties of rocks and soils; exploration techniques; analysis of geological science principles applicable to engineering problems, report preparation and professional responsibility. (2 hours lecture, 3 hours laboratory or field)

376 Applied Geology (3)

Prerequisites: Mathematics 130, 135 or 150A; Geological Sciences 101 and one semester university-level physics recommended. Geology applied to engineering works. Earth materials, processes; site evaluation techniques; geologic hazard analysis; case histories. (2 hours lecture, 3 hours laboratory, field)

380 Geologic Field Techniques (3)

Prerequisites: Geological Sciences 101, 101L, 201. Brunton compass use, measurement of stratigraphic sections, principles of topographic maps and aerial photographs and use in geologic mapping, geologic map preparation, columnar sections, cross sections and technical reports. (1 hour lecture, 6 hours field, weekends)

400 Optical Methods (3)

Prerequisites: Geological Sciences 303A; Physics 211B, 211BL or 225C, 225CL recommended. Principles of optical crystallography. Optical identification of minerals. Examination of rocks in thin section. (2 hours lecture, 3 hours laboratory)

404 Petrography (3)

Prerequisite: Geological Sciences 400. Composition, occurrence, and origin of igneous, sedimentary, and metamorphic rocks in microscopic study. (1 hour lecture, 6 hours laboratory)

406 Geochemistry (3)

Prerequisites: Geological Sciences 303B; Chemistry 120A; Mathematics 150A recommended. Basic chemical and thermodynamic principles applied to the origin and alteration of igneous, sedimentary and metamorphic rocks and economic mineral deposits.

407 Instrumental Methods in Geological Sciences (3)

Prerequisites: Geological Sciences 303B; Chemistry 120A,B. Determination of rock and mineral compositions by density determinations, x-ray diffraction, x-ray fluorescence, atomic absorption spectrometry, differential thermal analysis, wet geochemical analysis, electron microprobe and mass spectrometry. (1 hour lecture, 6 hours laboratory)

410 Special Topics in Geological Sciences (2-3)

Prerequisite: junior or senior standing in Geological Science. Check with department for specific prerequisites for given topic. Research concepts such as plate tectonics, soil science, planetary science, petroleum geology, paleontology, marine geology or meteorology. Can be repeated for credit with different topic.

423 Advanced Sedimentology and Stratigraphy (3)

Prerequisites: Geological Sciences 303A and 321. Case histories from literature illustrate concepts, methods, and results in sedimentology/stratigraphy analysis. Field and

lab work center around student research on actual problems; research to culminate in paper with professional format. (2 hours lecture, 3 hours laboratory)

431 Physical Oceanography (3)

Prerequisites: Geological Sciences 333 or equivalent; Physics 211B, 211BL or 225A, 225AL. Physical properties of sea water, water masses, ocean currents, underwater sound, waves and tides. (2 hours lecture, 3 hours laboratory, one field trip)

435 Hydrology Field Camp (4)

Prerequisites: Geological Sciences 335, 380; plus 321 and 360, or equivalent experience and consent of instructor. Hydrologic field mapping and techniques including stream gauging, aquifer tests and lake surveys. Final written report required. (45 hours a week for four weeks)

436 Hydrogeology (3)

Prerequisites: Geological Sciences 335, 356, 360, or equivalent. Occurrence, movement and utilization of groundwater resources; geological, geophysical and hydrological methods for groundwater exploration and development. Well hydraulics and groundwater contamination. (2 hours lecture, 3 hours laboratory, field trips)

437 Water Quality Investigations and Control (3)

Prerequisites: Geological Sciences 335; Chemistry 120A,B. Methods in sampling strategy. Evaluation of chemical data for quantitative interpretation of water quality status and trends, surface and subsurface. Techniques for graphic representation, water contamination source identification and control. (2 hours lecture, 3 hours laboratory and field)

455 Earthquake Seismology (3)

Prerequisites: Physics 211A,B, 211AL, 211BL, or 225A, 225AL; Geological Sciences 355 recommended. Earthquake measurement, characteristics and mechanisms. Magnitude, intensity, source locating. Prediction and prevention principles and techniques. Seismic risk. Current research directions. Southern California seismicity including case study. (3 hours lecture, one field trip)

460 Regional Tectonics (3)

Prerequisite: Geological Sciences 360. Investigation of regional tectonics, evolution of major structural units; orogenic belts, and plate tectonics; emphasis on the Cordillera and Alps.

471 Mineral Deposits (3)

Prerequisites: Geological Sciences 303B, 304; Chemistry 120A, or equivalent. Processes of mineral deposit formation; classification, characterization, and distribution of metallic and nonmetallic mineral deposits. (2 hours lecture, 3 hours laboratory)

481 Geology Field Camp (4)

Prerequisites: Geological Sciences 303B, 321, 360, 380. Geologic field mapping, operating from a field camp under primitive conditions in an area of varying geologic complexity. Field report, map and cross-sections due one week after departing camp. (45 hours a week for four weeks)

482 Geologic Surveying (3)

Prerequisites: Geological Sciences 303B, 360 and trigonometry. Applications of surveying to the solution of geologic problems. (1 hour lecture, 6 hours field work)

490 Geological Sciences Internship (3)

Prerequisite: junior or senior standing in geological sciences. Geological sciences work experience, salaried or

Prerequisite: Geological Sciences 303B; Chemistry 120B; consent of instructor. Special topics in geochemistry with emphasis on current investigations, specifically isotope, aqueous or petrologic geochemistry, crystal chemistry or geochemical exploration. May be repeated for credit with different topic.

Department of Mathematics

Department Chair: James Friel
Vice Chair: Gerald Gannon
Department Office: McCarthy Hall 154

Programs Offered

Bachelor of Arts in Mathematics

- Applied Mathematics Option
- Probability and Statistics Option
- Teaching Option

Minor in Mathematics

Minor in Mathematics for Teacher Education

Master of Arts in Mathematics

- Mathematics for Secondary Schools Option
- Applied Mathematics Option

Waiver Program for Secondary Teaching

Faculty

Russell Benson, Edwin Buchman, Joseph Bucuzzo, Gloria Castellanos, Michael Clapp, Paul De Land, Russell Egbert, James Friel, Gerald Gannon, William Gearhart, Richard Gilbert, Stephen Goode, Darryl Katz, Theodore Hromadka, Vuryl Klassen, Vyrion Klassen, Mathew Koshy, William Leonard, Gerald Marley, Mario Martelli, John Mathews, Ronald Miller, David Pagni, John Pierce, Steven Roman, Rollin Sandberg, Harris Shultz, Edsel Stiel, Lawrence Weill, Yun-Cheng Zee

INTRODUCTION

The Department of Mathematics offers a standard undergraduate major program in mathematics and options in applied mathematics, probability and statistics, and for prospective elementary or secondary teachers. Courses are provided to satisfy the needs of:

1. The student planning graduate study in mathematics;
2. The student planning to use mathematics in a career in business, industry or government;
3. The student planning to teach at the elementary or secondary level;
4. The student majoring in a discipline using mathematics as a descriptive or analytic tool.

The major program is designed to give sufficient breadth and depth in the study of mathematics to prepare students for subsequent graduate study in mathematics or related areas. The applied and the probability and statistics options provide the mathematics needed for certain careers in industry and government. For students interested in teaching in

elementary or secondary schools, the teaching option may be combined with programs leading to a teaching credential to meet both university degree requirements and California credential law.

Credential Information

The Waiver Program for Secondary Teaching has been approved by the State of California for the Department of Mathematics. In addition to the courses in the teaching option, Computer Sci 131 or 231 is required.

BACHELOR OF ARTS IN MATHEMATICS

In addition to the units in mathematics required in each program, all students seeking a B.A. in Mathematics must complete one of: Engineering 205 Digital Computation, Computer Science 112 Introduction to Computer Science, Computer Science 121 Programming Concepts, Computer Science 123 Programming Concepts Review. This requirement should be completed within the first two years. Each student is also required to select one of five cognates from the disciplines of computer science, economics, management science, philosophy or physics/ engineering. Those students selecting the computer science cognate are required to take Computer Science 121 or 123. Each course required for the major must be completed with a grade of C or better. Courses required for the major must be taken under grade option 1 and are not subject to challenge examinations.

Mathematics majors should take the lower-division mathematics courses (150A,B, 250A,B) during the first two years. Advanced calculus (350A) should be completed before the senior year.

Mathematics courses may be used to satisfy general education:

Core Requirements	Units
150A,B Analytic Geometry and Calculus	8
250A,B Intermediate Calculus	8
307 Applied Linear Algebra	3
335 Mathematical Probability	3
350A Advanced Calculus	3
370 Mathematical Model Building	3
Total	28

There are five upper-division courses beyond these requirements which may be taken in any one of four options, as follows:

Regular Program in Mathematics	Units
302 Modern Algebra	3
350B Advanced Calculus	3
412 Complex Analysis	3
407 Abstract Algebra, or	
455 Real Analysis	3
414 Topology, or	
417 Foundation of Geometry, or	
425 Differential Geometry	3
Total	15

Applied Option Units

306 Applied Analysis I	3
310 Ordinary Differential Equations	3
340 Numerical Analysis	3
One course each from two of the following groups	6
a. 406 Applied Analysis II	
b. 435 Mathematical Statistics, or 438 Stochastic Processes	
c. 440 Numerical Solutions of Partial Differential Equations, or 445 Advanced Numerical Analysis	
d. 425 Differential Geometry, or 470 Advanced Mathematical Model Building	
Total	15

Probability and Statistics Option Units

338 Statistics Applied to Natural Sciences	3
340 Numerical Analysis	3
371 Combinatorics	3
435 Mathematical Statistics	3
438 Stochastic Processes	3
Total	15

Teaching Option Units

302 Modern Algebra	3
401 Algebra and Probability for the Secondary Teacher	3
402 Logic and Geometry for the Secondary Teacher	3
414 Topology or 417 Foundations of Geometry	3
435 Mathematical Statistics, or 438 Stochastic Processes, or 470 Advanced Mathematical Model Building	3
Total	15

Cognates

Each student is required to select one of five cognates, as follows.

Computer Science

Comp Sci 131 Data Structures Concepts	3
Comp Sci 231 File System Concepts	3
Comp Sci 245 Computer Logic and Architecture	3
Total	9

Economics

Economics 201 Principles of Microeconomics	3
and	
Economics 202 Principles of Macroeconomics	3
or	
Economics 210 Principles of Economics	5
then	
Economics 440 Econometrics	3
Economics 441 Mathematical Economics	3
Total	11 or 12

Management Science

Three courses from the following:

Manag Sci 420 Applied Statistical Forecasting	
Manag Sci 422 Surveys and Sampling Design and Applications	
Manag Sci 448 Computer Simulation in Business and Economics	
Manag Sci 467 Statistical Quality Control	

Philosophy

	Units
Math 368 Symbolic Logic, 1st course*	3
Math 369 Symbolic Logic, 2nd course* and one of	3
Philosophy 380 Analytic Philosophy, or Philosophy 384 Philosophy of the Physical Sciences	3
Total	9

* Same as Philosophy 368/369.

Physics/Engineering

	Units
Physics 225A Mechanics	3
Physics 225AL Mechanics Lab	1
Physics 225B Electricity and Magnetism	3
Physics 225BL Electricity and Magnetism Lab	1
Physics 225C Modern Physics, or	
Engineering 201 Statics	3
Total	11

Internships in Mathematics

Internships in applied mathematics provide work experience in advanced mathematics through positions in business, industry or government.

Writing Requirement

Math 380 will satisfy the university's upper-division writing requirement for mathematics majors.

MINOR IN MATHEMATICS

A mathematics minor shall consist of 25 units of course work which shall include Math 150A,B, 250A,B and at least nine units of upper division mathematics, exclusive of Math 303A,B, 380, 401, 402, 495, 496 and 499. All courses must be completed with a grade of C or better.

MINOR IN MATHEMATICS FOR TEACHER EDUCATION

- For elementary education the minor consists of 20 units of course work selected from the courses offered by the Department of Mathematics. The courses must include Mathematics 150B or 338, and Mathematics 303A,B. All courses must be completed with a grade of C or better.
- For secondary education the minor consists of 22 units of course work selected from the courses offered by the Department of Mathematics. The courses must include Mathematics 250B and six units of upper-division courses in mathematics. All courses must be completed with a grade of C or better.

Required Course Work for Teaching Credentials

Candidates for secondary school credentials must complete the following courses: Mathematics 401 and 402 and Mathematics Education 442 and 449 E, I, S.

MASTER OF ARTS IN MATHEMATICS

The M.A. in Mathematics is designed to provide advanced study for students interested in continuing studies for a Ph.D. in mathematics, high school and community college teaching or mathematical analysis in industry.

Prerequisites

An applicant must meet the university requirements for admission in conditionally classified graduate standing: a baccalaureate from an accredited institution and a grade-point average of at least 2.5 in the last 60 semester units attempted (see section of this catalog on Graduate Admissions for complete statement and procedures). In addition, students must have an undergraduate major in mathematics or a combination of previous course work and work experience approved as equivalent by the graduate committee of the Mathematics Department.

A student who meets the requirements for conditionally classified graduate standing may be granted classified graduate standing upon meeting the following requirements: a grade-point average of at least 3.0 in all upper-division mathematics courses; the completion of undergraduate courses equivalent to one semester of linear algebra, one semester of modern algebra and advanced calculus; and the development of a study plan approved by an adviser and the graduate committee. Students with subject or grade deficiencies who have been admitted to conditionally classified standing must complete all courses required by the graduate committee with at least a 3.0 average before they will be classified. In addition, students in the secondary schools option should have completed a minimum of one year of full-time teaching in junior high or senior high mathematics.

Study Plan for Students in the Regular Program

For this program a plan of study leading to a Master of Arts in Mathematics may be designed to provide advanced work in mathematics. A personalized study plan to meet the objectives of each student may be developed within the general framework of the degree requirements.

The program requires a study plan with a minimum of 30 units of courses, planned by the student and the student's adviser, and approved by the graduate committee of the Mathematics Department. At least 16 of these units must be 500-level mathematics courses. No 300-level course work is applicable to the master's degree. Each three unit 500-level course must be accompanied by one unit of Mathematics 599 Independent Graduate Research. These 500-level courses should not come from any single area of mathematics. In addition, at least two from the following must be completed: Mathematics 407 Abstract Algebra, Mathematics 412 Complex Analysis, Mathematics 414 Topology, Mathematics 417 Foundations of Geometry, Mathematics 425 Differential Geometry, Mathematics 455 Real Analysis.

Study Plan for Students in the Mathematics for Secondary Schools Option

This option, designed for mathematics teachers, requires 30 units of graduate study approved by the graduate committee. At least sixteen of these units must be 500-level mathematics courses. The following course work must be included: Mathematics 581 Geometry for Teachers, Mathematics 582 Algebra for Teachers, Mathematics 584 Analysis for Teachers, Mathematics 585 Mathematical Computation

for Teachers, Mathematics 587 Problem Solving for Teachers, and from three to six units of Mathematics 599. Each student will be required to take electives to ensure competence in algebra, geometry and analysis.

Study Plan for Students in the Applied Mathematics Option

For those interested in applied mathematics, the Department of Mathematics, in consultation with mathematicians and scientists in the local industrial community, offers the following courses in applied mathematics: Mathematics 489A,B Applicable Analysis and Linear Analysis; Mathematics 501A,B Numerical Analysis and Computation, Mathematics 502A,B Probability and Statistics, Mathematics 503A,B Optimization, Theory and Application, Mathematics 504A,B Modeling and Simulation. These courses are specifically intended for individuals who are seeking positions, or who currently hold positions, which involve mathematics or quantitative applications. The subject matter emphasizes modern practical applied mathematics, modeling, problem solving and computation. All classes are scheduled in the evening and can be taken in sequence in two calendar years, summers included.

Comprehensive Examination or Project

Before the department will recommend the awarding of the degree in any option, each student must pass a set of comprehensive examinations (written and/or oral) designed to test competence in appropriate course materials or complete a satisfactory final project (Mathematics 597, 6 units). Students in the applied option select the project; students in the other two options must pass the comprehension exams.

For more detailed information or advisement, communicate with the chair of the Department of Mathematics.

Mathematics Courses

Prerequisites may be waived in any mathematics course by consent of instructor.

100 Precalculus Mathematics (4)

Prerequisites: the equivalent of three years of high school mathematics, a passing score on a qualifying exam to be administered at the first class meeting; and for incoming freshmen and transfer students subject to the 1983 or later catalog a passing score on or an exemption from the ELM. For students who plan on taking calculus but who lack the necessary preparation. Polynomial, rational, exponential, logarithmic and trigonometric functions. No credit if taken after Mathematics 150B.

110 Mathematics for Liberal Arts Students (3)

Prerequisites: Passing score on the ELM or exemption; two years of high school mathematics, including one year of algebra and one year of geometry. Algebra, number theory, geometry, set theory, probability and analysis and the ideas and methods involved. For non-science majors.

120 Introduction to Probability and Statistics (3)

Prerequisites: Passing score on the ELM or exemption; the equivalent of three years of high school mathematics, in-

cluding a second course in algebra. Set algebra, finite probability models, sampling, binomial trials, conditional probability and expectation. Recommended for students of economics, business, the biological, geological and social sciences.

130 A Short Course in Calculus (4)

Prerequisites: the equivalent of three years of high school mathematics, including a second course in algebra, a passing score or an exemption from the ELM and a passing score on the mathematics qualifying examination. Differential and integral calculus. For students of business, economics, the biological, geological and social sciences. No graduation credit if taken after successfully completing Math 150A. No graduation credit for both Mathematics 130 and 135.

135 Business Calculus (3)

Prerequisites: three years of high school mathematics, including two years of algebra, a passing score or an exemption from the ELM and a passing score on the mathematics qualifying examination. Elements of differential and integral calculus and their applications; including derivatives, integrals and max-min problems. Designed for students of business. No graduation credit if taken after successfully completing Mathematics 150A. No graduation credit for both Mathematics 130 and 135.

150A,B Analytic Geometry and Calculus (4,4)

Prerequisites: the equivalent of four years of high school mathematics including trigonometry, a passing score or an exemption from the ELM and a passing score on the mathematics qualifying examination. 150A is the only prerequisite for 150B. Analytic geometry, functions, limits, differentiation, the definite integral, techniques of integration, applications, infinite series, Taylor's theorem. At most 6 units of credit are given for Mathematics 130 and 150A or Mathematics 135 and 150A.

196 Student-to-Student Tutorials (1-3)

Consult "student-to-student tutorials" in this catalog for more complete course description. May be taken CR/NC only.

250A Intermediate Calculus (4)

Prerequisites: Mathematics 150A,B or equivalent. A continuation of Math 150. Functions of several variables, partial differentiation, multiple integration, linear differential equations.

250B Intermediate Calculus (4)

Prerequisites: Math 250A. An introduction to the solutions of ordinary differential equations and their relationship to linear algebra. Topics include matrix algebra, systems of linear equations, vector spaces, linear independence, linear transformations and eigenvalues.

270A Mathematical Structures I (3)

Prerequisite: Mathematics 150B. First of two semesters of fundamental discrete mathematical concepts and techniques needed in computer-related disciplines. Logic, truth tables, elementary set theory, proof techniques, combinatorics.

270B Mathematical Structures II (3)

Prerequisite: Mathematics 270A. Second of two semesters of fundamental discrete mathematical concepts and techniques needed in computer-related disciplines. Graph theory, Boolean algebra, algebraic structures, linear algebra.

- 302 Modern Algebra (3)**
Prerequisite: Mathematics 250B. The integers, rational numbers, real and complex numbers, polynomial domains, introduction to groups, rings, integral domains and fields.
- 303A,B Fundamental Concepts of Elementary Mathematics (3,3)**
Prerequisite: a passing score on the ELM, or equivalent, plus three units of course work in mathematics. At least one prior course in each of the fields of algebra and geometry; three years of high school mathematics recommended. Mathematics 303A is a prerequisite for Math 303B. The structure and form of the mathematics that constitutes the core of the K-8 mathematics curriculum, including the real number system, number theory and equations.
- 306 Applied Analysis I (3)**
Prerequisite: Mathematics 250B. Vector analysis, including Green's, Gauss' and Stokes' theorems. Introduction to complex analysis applications.
- 307 Applied Linear Algebra (3)**
Prerequisite: Mathematics 250B. An introduction to the theory of matrices and linear transformations with a major emphasis on applications. Topics include similarity transformations, bilinear and quadratic forms, orthogonal and unitary transformations.
- 310 Ordinary Differential Equations (3)**
Prerequisite: Mathematics 250B. Theory and methods of solutions for ordinary differential equations, including Laplace transform methods and power series methods. Oscillation theory for second order linear differential equations and/or theory for systems of linear and nonlinear differential equations.
- 330 Number Theory (3)**
Prerequisite: Mathematics 250B. Divisibility, congruences, prime number theory, Diophantine problems.
- 335 Mathematical Probability (3)**
Prerequisite: Mathematics 250A. Probability theory and its applications, based on use of the calculus.
- 338 Statistics Applied to Natural Sciences (3)**
Prerequisite: Mathematics 130 or 150B or consent of instructor. An introduction to the theory of statistics and statistical applications with an emphasis on data analysis techniques. Topics include elementary probability theory, estimation, hypothesis testing, correlation and regression, analysis of variance, and non-parametric tests.
- 340 Numerical Analysis (3)**
Prerequisites: Mathematics 250B and one of the following: Engineering 205, Computer Science 112, 121, 123 or equivalent. Approximate numerical solutions of systems of linear and nonlinear equations, interpolation theory, numerical differentiation and integration, numerical solution of ordinary differential equations. Computer coding of numerical methods.
- 350A,B Advanced Calculus (3,3)**
Prerequisite: Mathematics 250B. 350A is a prerequisite for 350B. Proofs in analysis. Continuity, differentiation and integration of functions of several variables, improper integrals, sequences and infinite series.
- 368 First Course in Symbolic Logic (3)**
(Same as Philosophy 368)
- 369 Second Course in Symbolic Logic (3)**
(Same as Philosophy 369)
- 370 Mathematical Model Building (3)**
Prerequisite: Mathematics 250B or consent of instructor and one of the following: Engineering 205, Computer Science 112, 121, 123 or equivalent. The theory of mathematical models and their applications in the biological, physical and social sciences. Discrete and continuous models.
- 371 Introduction to Combinatorics (3)**
Prerequisite: Mathematics 250A and one of the following: Engineering 205, Computer Science 112, 121, 123 or equivalent. Working ability in FORTRAN, PASCAL or BASIC. Combinatorial techniques for studying discrete configurations are surveyed. Some emphasis is placed on developing efficient algorithmic solutions. Methods of enumeration. Proofs of existence, constructive techniques and applications are explored. (Same as Computer Science 371)
- 380 History of Mathematics (3)**
Prerequisite: Mathematics 250B. The history of mathematics through its methods and concepts. Designed to help the student become proficient in writing and reading mathematical literature. Satisfies the upper-division writing requirement for mathematics majors.
- 401 Algebra and Probability for the Secondary Teacher (3)**
Prerequisite: 12 units of upper-division mathematics. An overview of mathematical topics relevant to the teacher of secondary mathematics. A problem-solving approach to areas including algebra, number theory, combinatorics and probability will be employed while maintaining an historical perspective.
- 402 Logic and Geometry for the Secondary Teacher (3)**
Prerequisite: 12 units of upper-division mathematics. A course parallel to Mathematics 401 but with emphasis on geometry, trigonometry and the theory of equations.
- 406 Applied Analysis II (3)**
Prerequisite: Mathematics 306. Partial differential equations. Fourier analysis and integral transforms. Boundary-value problems for the potential, wave and diffusion equations. Sturm-Liouville theory. Applications.
- 407 Abstract Algebra (3)**
Prerequisite: Mathematics 302. Sets, mappings, groups, rings, modules, fields, homomorphisms, advanced topics in vector spaces and theory of linear transformations, matrices, algebras, ideals, field theory, Galois theory.
- 412 Complex Analysis (3)**
Prerequisite: Mathematics 350A. Complex differentiation and integration, Cauchy's theorem and integral formulas, maximum modulus theorem, harmonic functions, Laurent series, analytic continuation, entire and meromorphic functions, conformal transformations and special functions.
- 414 Topology (3)**
Prerequisite: Mathematics 350A. Topological spaces and continuous functions, connectedness and compactness, metric spaces and function spaces.
- 417 Foundations of Geometry (3)**
Prerequisite: Mathematics 307. A study of the foundations of geometry through transformation and formal axiomatics.

isometrics, continuous projective and affine transformations. Convexity and metric spaces.

425 Differential Geometry (3)

Prerequisite: Math 307. The differential geometry of curves and surfaces. Frenet-Serret formulas, the Gauss-Weingarten equations, the Gauss-Bonnet theorem.

435 Mathematical Statistics (3)

Prerequisite: Mathematics 335 or equivalent. Statistical theory and its applications, based on the use of calculus.

438 Introduction to Stochastic Processes (3)

Prerequisite: Mathematics 335. Stochastic processes including Markov chains, the Poisson Process, the Wiener Process. Applications to birth and death processes and queueing theory.

440 Numerical Solutions of Partial Differential Equations (3)

Prerequisite: Mathematics 340. Approximate numerical solutions of partial differential equations and boundary value problems in which they are involved, using finite difference methods. Numerical computation of eigenvectors. Error analysis. Computer coding of numerical methods.

445 Advanced Numerical Analysis (3)

Prerequisite: Mathematics 340. Numerical solutions of ordinary, and systems of ordinary differential equations; solutions of polynomial equations, the eigenvalue problem for matrices; spline, relaxation and optimization methods.

455 Real Analysis (3)

Prerequisite: Mathematics 350B. Metric spaces, continuity, uniform convergence, Lebesgue measure and integration.

470 Advanced Mathematical Model Building (3)

Prerequisite: Mathematics 370. A continuation of Math 370. Discrete, continuous and stochastic models utilizing methods from applied mathematics. A project suitable to the student's background and interest may be required.

489A Applicable Linear Algebra (3)

Prerequisites: undergraduate calculus, linear algebra, advanced calculus and consent of instructor. Topics from linear algebra useful in graduate studies in mathematics, including finite and infinite dimensional vector spaces, linear transformations and matrices. Must be taken concurrently with Math 489B.

489B Applicable Analysis (3)

Prerequisites: undergraduate calculus, linear algebra, advanced calculus and consent of instructor. Topics from analysis useful in graduate studies in mathematics, including metric spaces, normed and inner product spaces and linear operators. Must be taken concurrently with Math 489A.

495 Internship in Applied Mathematics (1-3)

Prerequisites: 15 units of upper-division mathematics and consent of instructor. Work experience in advanced mathematics through positions in business, industry or government.

496 Student-to-Student Tutorials (1-3)

Consult "student-to-student tutorials" in this catalog for more complete course description. May be taken CR/NC only.

499 Independent Study (1-3)

Prerequisite: consent of instructor. Special topic in mathematics, selected in consultation with and completed under supervision of instructor.

501A Numerical Analysis and Computation I (3)

Prerequisites: Mathematics 489A,B or consent of instructor. Numerical methods for linear and nonlinear systems of equations, eigenvalue problems. Interpolation and approximation, numerical differentiation, integration and function evaluation. Error analysis, comparison, limitations of algorithms. Must be taken concurrently with Mathematics 501B.

501B Numerical Analysis and Computation II (3)

Prerequisites: Mathematics 489A,B or consent of instructor. Numerical methods for initial and boundary-value problems for ordinary and partial differential equations. The finite element method. Error analysis, comparison, limitations of algorithms. Must be taken concurrently with Mathematics 501A.

502A Probability and Statistics I (3)

Prerequisites: Mathematics 489A,B. The theory and applications of conditioning and random processes, with emphasis on modeling special discrete and continuous time processes. Must be taken concurrently with Mathematics 502B.

502B Probability and Statistics II (3)

Prerequisites: Mathematics 489A,B and 502A. The mathematical theory and applications of renewal, queueing and reliability with advanced theoretical concepts in statistical estimation and topics from time series analysis. Must be taken concurrently with Mathematics 502A.

503A Optimization Theory and Application I (3)

Prerequisites: Mathematics 489A,B or consent of instructor. Mathematical principles of optimization with applications. Minimum norm problems in Banach and Hilbert space. Least squares and minimum mean square estimation. Recursive estimation and Kalman filtering. Duality. Adjoint, pseudoinverse projection operators. Must be taken concurrently with Math 503B.

503B Optimization Theory and Application II (3)

Prerequisites: Mathematics 489A,B or consent of instructor. Local and global optimization of functionals; differentials, the calculus of variations. Constrained optimization; Lagrange multiplier methods, optimal control, the maximum principle and dynamic programming. Selected applications commonly found in industry. Must be taken concurrently with Math 503A.

504A Advanced Topics in Mathematical Modeling I (3)

Prerequisites: Mathematics 489A,B or consent of instructor. Modeling of deterministic systems and random processes using ordinary and partial differential equations. Fourier methods. General modeling techniques including conditioning and sensitivity, dimensional analysis and scaling. Must be taken concurrently with Math 504B.

504B Advanced Topics in Mathematical Modeling II (3)

Prerequisites: Mathematics 489A,B or consent of instructor. Regular and singular perturbation theory, application to sensitivity analysis. Phase plane techniques and stability. Wave propagation in general media. Potential theory. Must be taken concurrently with Math 504A.

512 Complex Analysis (3)

Prerequisites: Mathematics 412 and 350B. Analytic functions of several variables, special functions, conformal mapping and Riemann surfaces.

514 Topology (3)

Prerequisite: Mathematics 414. Advanced point set and algebraic topology.

581 Geometry for Teachers (3)

Prerequisites: Mathematics 307 or consent of instructor, graduate standing, plus one year of full-time teaching in secondary school mathematics. Topics relating to the high school curriculum from an advanced standpoint including the axiomatic method and non-Euclidean geometry.

582 Algebra for Teachers (3)

Prerequisites: Mathematics 302, or consent of instructor, graduate standing, plus one year of full-time teaching in secondary school mathematics. Topics relating to the high school curriculum from an advanced standpoint including algorithms, fields and polynomials.

584 Analysis for Teachers (3)

Prerequisites: Mathematics 350A or consent of instructor, graduate standing, plus one year of full-time teaching in secondary school mathematics. Topics relating to the high school curriculum from an advanced standpoint including limits, continuity, differentiation and integration.

585 Mathematical Computation for Teachers (3)

Prerequisites: Math 350A or consent of instructor, knowledge of computer programming, graduate standing and one year of full-time teaching in secondary school mathematics. Selected mathematical topics that lend themselves to computer solution.

587 Problem Solving for Teachers (3)

Prerequisites: Math 302 or consent of instructor, graduate standing, plus one year of full-time teaching in secondary school mathematics. Problem solving via non-routine and enrichment-type problems from several branches of mathematics.

597 Project (3,6)

Prerequisite: consent of instructor.

599 Independent Graduate Research (4-6)

Prerequisite: graduate standing. One unit required for each regular graduate course. Also offered without being attached to any course. May be repeated for credit.

Mathematics Education Courses

442 Teaching Mathematics in Secondary School (3)

Prerequisite: admission to Teacher Education Program in Mathematics or consent of instructor. Objectives, methods, and materials including audiovisual instruction for teaching mathematics. Required before student teaching, of mathematics majors for the general secondary credential. (Offered fall semester only) (2 hours lecture, 2 hours activity)

449E Externship in Secondary Teaching (3)

See description under Department of Secondary Education. (Offered fall semester only)

449I Internship in Secondary Teaching (10)

See description under Department of Secondary Education. (Offered spring semester only)

449S Seminar in Secondary Teaching (2)

See description under Department of Secondary Education. (Offered spring semester only)

499 Independent Study (1-3)

Prerequisite: consent of instructor. Special topic in mathematics education, selected in consultation with and completed under supervision of the instructor. May be repeated for credit.

Department of Physics

Department Chair: Dorothy Woolum
Department Office: McCarthy Hall 611

Programs Offered

Bachelor of Science in Physics

Minor in Physics

Faculty

Raymond Adams, Ronald Crowley, Roger Dittmann-Djakovic, James Feagin, Fred Johnson, Roger Nanes, Mark Shapiro, Louis Shen, Dorothy Woolum.

Adviser

All programs: Raymond Adams

INTRODUCTION

Physics is the natural science that deals with the properties and interactions of matter and radiation. As such, physics provides the fundamental basis for all other sciences, and for applied science fields such as engineering and the health sciences. Many physicists engage in research designed to expand the frontiers of physical knowledge; others engage in the application of physics concepts in industry, and in private and government laboratories.

The physics major program can provide the education necessary for the student to continue studies at the graduate level that, in turn, lead to the master's and doctoral degrees. Alternatively, the physics major program can provide the education necessary for the student to work immediately upon graduation with the bachelor's degree, either in industry or government labs, in applied physics fields, or in teaching at the secondary school level.

Each student's study program is formalized in an approved study plan that provides the type of education that will best suit that student's needs upon graduation. The emphasis of the study plan is physical theory and mathematics for those planning on graduate school, while the emphasis is the more applied courses (such as physical electronics), including advanced laboratory work, for those planning to work in applied physics upon graduation.

The department's instrumentation and facilities include four real-time research computers with interfacing modules for instruction in modern automation and for automated faculty research projects. Students are encouraged to obtain research experience by assisting faculty in their ongoing research efforts. Physics 495, Internship in Physics, provides practical work experience that integrates classroom studies with the needs and methods of modern industrial science.

BACHELOR OF SCIENCE IN PHYSICS COURSE REQUIREMENTS

Lower Division

	Units
General Chemistry (Chem 120A,B)	10
Mathematics (Math 150A,B and 250A)	12
Fundamental Physics (Physics 225A,B,C and 225AL,BL,CL)	12
Total	34

Upper Division

Physics 310	Thermodynamics, Kinetic Theory and Statistical Physics	3
Physics 320	Classical Mechanics	4
Physics 330	Electromagnetic Theory	4
Physics 340	Modern Physics	4
Physics 380	Methods of Experimental Physics	3
At least 12 additional upper-division units in physics and 6 units of general electives in applied mathematics, science or the equivalent: selected in consultation with the department's academic adviser and of the department chair		18
Total		36

Upper-Division Writing Requirement 3

English 301	Advanced College Writing or
English 360	Scientific and Technical Report Writing

Other requirements

Each course in physics, mathematics, chemistry and English that is required for the major must be completed with grade of C or better.

Formal academic advisement is required for all physics majors at least once every academic year.

Each physics major must file a plan of study with the Physics Department prior to the student's enrollment in upperdivision physics courses. This plan must be approved by the department chair.

MINOR IN PHYSICS

Lower Division

	Units
Fundamental Physics (Physics 225A,B,C and 225AL,BL,CL)	12

Upper Division

Upper-Division Experimental Physics	3
Additional upper-division units in physics, selected in consultation with the department academic adviser with approval by both the adviser and the department chair	6

TEACHING CREDENTIAL

To qualify for a waiver from the examination for a Single Subject Credential in Physical Science, the following courses are required in addition to those for the B.S. degree in Physics:

- Chemistry 301A,B.
- Geological Sci 101, 101L, and 201.
- Physics 200.
- Two of: Biological Sci 101 (and 101L), 141 (and 141L), and 161 (and 161L).

Physics Courses

A grade of C or better is required in all prerequisite courses. Prerequisite requirements with exception of the grade requirement may be waived by the instructor of the course if the instructor is satisfied that the student is qualified to undertake the course.

100 Man and His Physical Environment (4) (Same as Physical Science 100)

105 Fads and Fallacies in the Name of Science (1)

Pseudoscientific theories and practices and how they differ fundamentally from science: astrology, UFO's, Bermuda Triangle, faith healing, ESP, talking to plants, biorhythms, pyramidology, acupuncture.

107 Nuclear Energy and Its Impact on Society (1)

Physics and technology of nuclear power. Its role in national energy policy. Its social costs, political economy, historical development, relation to nuclear weapons, and implementation in other countries. Problem of nuclear proliferation.

123 Perspectives of Man's Physical Universe (3)

Fundamental laws of nature. Topics of current interest such as lasers, space exploration, and energy. (For non-science majors.)

123L Perspectives of Man's Physical Universe Laboratory (1)

Concurrent enrollment in Physics 123 required. Experiments that demonstrate important scientific methods. Quantitative experiments in energy, electricity, radioactivity and waves.

175 Applied Physics I (1)

Mathematics useful for solving elementary physics problems. Review of geometry, algebra, and trigonometry commonly used in Physics 211A and 225A.

200 Introduction to Astronomy (4)

High school algebra recommended. Celestial motion, the solar system, galactic structure, theories of the origin of the universe and the solar system, and evolution, leading to precursors of life-forming molecules. (3 hours lecture, 1 hour of activity, field trips to planetariums and/or observatories and observing sessions). (Fee required).

211A Elementary Physics (3)

Corequisite: Mathematics 130 or 150A, Physics 211AL, examination. An introduction to mechanics and thermodynamics. Designed for life and health science majors. (2 hours lecture, 1 hour recitation).

211B Elementary Physics (3)

Prerequisite: 211A with a grade of C or better. Corequisite: Physics 211BL. An introduction to electricity and magnetism, wave motion and optics. Designed for life and health science majors. (2 hours lecture, 1 hour recitation).

211AL, 211BL Elementary Physics (1,1)

Laboratory for 211A,B. Concurrent enrollment in the corresponding 211A,B lecture required. (3 hours laboratory). (Instructional materials fee required.)

225A Fundamental Physics: Mechanics (3)

Prerequisite: Mathematics 150A. Concurrent enrollment in 225AL required. Classical Newtonian mechanics; linear and circular motion; energy; linear/angular momentum; systems of particles; rigid body motion; wave motion and sound.

225B Fundamental Physics: Electricity and Magnetism (3)

Prerequisite: Math 150B and Physics 225A or equivalent; concurrent enrollment in Physics 225BL required. Electrostatics, electric potential, capacitance, dielectrics, electrical circuits, resistance, emf, electromagnetic induction, magnetism and magnetic materials, and introduction to Maxwell's equations.

225C Fundamental Physics: Modern Physics (3)

Prerequisite: Physics 225B with a grade of C or better, or equivalent. Concurrent enrollment in Physics 225CL laboratory required. Geometrical and physical optics, wave phenomena; quantum physics, including the photoelectric effect, line spectra and the Bohr atom; the wave nature of matter, Schrodinger's equation and solutions; the Uncertainty Principle, special theory of relativity.

225AL,BL,CL Fundamental Physics: Laboratory (1,1,1)

Laboratory for Physics 225A,B,C. Concurrent enrollment in the corresponding 225A,B,C lecture required (3 hours laboratory). (Instructional materials fee required.)

305 Acoustics (4)

Prerequisite: Mathematics 100 or 110. Fundamentals of sound production, propagation, and measurement. Musical instruments, physiology of the ear, hearing impairment, noise pollution, auditorium design, sound synthesizers and analyzers. (3 hours lecture, 3 hours lab). Not applicable to physics majors.

310 Thermodynamics, Kinetic Theory, and Statistical Physics (3) (Formerly 325)

Prerequisite: Physics 225C with a grade of C or better. Temperature, work, internal energy, heat reversibility, and entropy; laws of thermodynamics; physical, chemical and engineering applications; kinetic theory of gases.

320 Classical Mechanics (4) (Formerly 441)

Prerequisites: Physics 225C and Math 250A. Classical mechanics and associated mathematical techniques: Newtonian dynamics; Lagrangian and Hamiltonian dynamics; rigid bodies; numerical integration and solutions of differential equations.

330 Electromagnetic Theory (4) (Formerly 431A)

Prerequisites: Physics 225C, Math 250A. Applications of vector calculus and Maxwell's equations to the propagation of EM waves in dielectrics, plasmas, and conductors. Selected topics in radiation, diffraction, and eigenfunction expansions of static and waveguide fields.

340 Modern Physics (4) (Formerly 451A)

Prerequisites: Physics 225C and Math 250A. A survey of modern physical theories, their experimental foundations and applications: special relativity; quantum physics of atoms, molecules, and nuclei; introduction to solid state physics.

380 Methods of Experimental Physics (3) (Formerly 480)

Prerequisite: Physics 225B. Experiments using analog, digital, and integrated circuits including: filtering circuits, diodes, transistor amplifiers, operational amplifiers, triggers, and digital logic. Introduction to automated experimentation. (1 hour lecture, 6 hours laboratory). (Instructional materials fee required.)

384 Philosophy of the Physical Sciences (3)

(Same as Philosophy 384)

410 Introduction to Mathematical Physics (3)

Prerequisite: Physics 225C and Mathematics 250A.

The ordinary and partial differential equations of physics. Vector calculus, linear algebra, calculus of variations, Fourier series and integral transforms. Problems in physics.

411 Modern Optics (3)

Prerequisites: Physics 225A,B,C; Mathematics 250A.

Wave propagation, introduction to the calculus of variations, Fourier optics, introduction to spatial filtering and image enhancement, lasers.

412 Introduction to Molecular Biophysics (3)

Prerequisites: Biological Science 101, Mathematics 150A,B or consent of instructor, and Physics 211A,B. The properties of biological systems from a molecular viewpoint. Determination of macromolecular size and shape and the relation of such information to the function of biological systems.

414 Physics of the Solar System (3)

Prerequisites: Mathematics 250A, and Physics 225A,B,C; Physics 310 recommended. Solar system physics, including physical principles underlying current experiments in planetary science and space physics. Solar physics; planetary dynamics; experimental probes of planetary surfaces, interiors and atmospheres; physical constraints on theories of the solar system origin.

416 Thermal and Statistical Physics (3)

Prerequisites: Physics 225A,B,C and Mathematics 250A. The disciplines of thermodynamics, statistical mechanics and kinetic theory (and their applications); their unifying microscopic foundation.

454 Introduction to the Solid State of Matter (3)

Prerequisite: Physics 340; differential equations. The physical properties of matter in the solid state, as explained by atomic theory. Crystal structure, thermal, electric and magnetic properties of metals, semiconductors, band theory and solid state devices.

455 Introduction to Quantum Physics (3)

Prerequisite: Physics 320; differential equations. The concepts and theory of quantum physics. Early quantum theories, the Schrodinger equation, eigenvalue equations, operators, commutation properties, applications to simple quantum systems, angular momentum.

465 Gravitation (3)

Prerequisites: Physics 225A,B,C and Mathematics 250A,B. Introduction to differential geometry and tensor analysis needed to understand Einstein's General Theory of Relativity. Applications of general relativity to stars, gravitational collapse, black holes, gravitational waves, cosmology. Experimental tests/alternate theories of gravity.

471 Electronic Circuit Theory (3)

Prerequisites: Physics 225A,B,C and Mathematics 250A. Operating characteristics of transistors and semiconductor diodes. Linear circuit theory for alternating currents and for transient currents. Switching and pulse circuits. Digital electronics.

473 Basic Instrumentation Concepts (3)

Prerequisite: Physics 225B. Modern instrumentation theory, techniques, and practices in the physical sciences. A systematic approach to physical measurement from transducer to data presentation.

476 Atomic Structure (3)

Prerequisite: Physics 455. Theory of atomic structure, interaction of radiation with matter and perturbation theory. Angular momentum and coupling schemes.

481 Experimental Physics (2)

Prerequisites: Physics 225C, Physics 380 recommended. Automated experimentation and data processing techniques for experimental and applied physicists planning automated experiments, programming of microprocessors and peripheral control ICs, circuits for interfacing computer modules and experimental apparatus. (6 hours laboratory).

482 Experimental Physics (2)

Prerequisites: Physics 225C, Physics 411 recommended. Experiments in optics, including: spatial filtering, image enhancement, atomic spectroscopy, interferometry, holography, and photographic techniques. (6 hours laboratory). (Instructional materials fee required.)

495 Internship (1)

Prerequisites: upper-division standing in physics and consent of the chair. Professional physics work in industry or government, to provide an in-depth experience. Written report is required. May be repeated once for credit.

496 Student-to-Student Tutorials (1-3)

Prerequisite: upper-division standing and consent of chair. Students learn through teaching, increase mastery of subject matters, develop awareness of teaching problems and competence in teaching techniques. Consult "Student-to-Student Tutorials" in this catalog for more complete course description.

499 Independent Study (1-3)

Prerequisite: approval of study plan by department chair and instructor. Topic in physics, selected in consultation with and completed under the supervision of the instructor. May be repeated for credit to a maximum of six units.

598 Thesis (1-6)

Planning, preparation and completion of an acceptable thesis in partial fulfillment of the requirements for the master's degree. Credit to be obtained only upon formal submission of thesis.

599 Independent Graduate Research (1-3)

Prerequisite: written approval of study plan by department committee and by instructor. Open only to graduate students and only with consent of a faculty member. May be repeated for credit.

Science Education Program

Program Coordinator: H. Eric Streitberger
Program Office: McCarthy Hall 553

Program Offered

Master of Arts in Teaching Science

Faculty

Gaylen Carlson, Francis Collea, H. Eric Streitberger,
Barry Thomas

Advisers

MAT-S: Gaylen Carlson

Secondary Teaching Certification: Gaylen Carlson,
Eric H. Streitberger, Charles Williams (Teacher Education).

Introduction

Science Education is a specialized area of learning and instruction related to the pre-service and in-service education of science teachers.

The Science Education Program prepares students to teach science at the elementary and secondary levels; provides guidance for experienced teachers in the study and use of educational practices developed for the teaching of sciences; and helps teachers develop original ideas in their areas of specialization.

The offerings of this program include basic professional training courses required for teaching certification, advanced course work in science education, and certain academic content offerings designed especially for teacher preparation.

The program teaches scientific content, scientific processes and curriculum for prospective and practicing elementary teachers. These courses are in the physical sciences and the biological sciences.

The program also offers courses for prospective and practicing secondary teachers in the methods of teaching science and the processes of science and is responsible for the supervision of these teachers in student teaching assignments. These courses and experiences give prospective secondary teachers the skills necessary to teach the scientific content of their particular science major.

Requirements for Teaching Credentials

The following courses offered by the Science Education Program are required of candidates for teaching credentials in science.

Single Subject Credential Candidates—Life Sciences and Physical Sciences

- Science Ed 312 Processes of Science (3)
- Science Ed 442 Teaching Science in the Secondary School (3)
- Science Ed 449E Extern in Secondary Teaching (3)
- Science Ed 449I Intern in Secondary Teaching (10)
- Science Ed 449S Seminar in Secondary Teaching (2)

The student should take Science Ed 442 and concurrently enroll in Science Ed 449E (5 weeks of student teaching at the end of the semester). Science Ed 449I (full-time student teaching) and Science Ed 449S are taken concurrently in the following semester. Science Ed 312 is a prerequisite for Science Ed 449I and must be included in the student's study plan. It can be taken concurrently with 449I with consent of the instructor.

Courses Approved for the Child Development and the Liberal Studies Waiver Programs

Selections from the following courses may be used to meet degree requirements for the Child Development major or the liberal studies major:

- Science Ed 310 Physical Science Concepts (3)
- Science Ed 453 Life Science Concepts (3)

In recognition of the need for education in nature interpretation and conservation, the Science Education Program offers course work in these disciplines. Much of this course work takes place at the Tucker Wildlife Sanctuary in the Santa Ana Mountains.

MASTER OF ARTS IN TEACHING—SCIENCE

The primary objectives of the Master of Arts in Teaching—Science are to provide advanced studies in science curriculum designs appropriate to the professional responsibilities of science educators; to provide research and seminar opportunities in contemporary issues in science education; and to enable teachers to become more proficient in science disciplines appropriate to their academic teaching assignments.

The Science Education Program offers graduate level course work in science education for these teachers. Additional course work is selected from the departments of Biological Science, Chemistry and Biochemistry, Computer Science, Geological Sciences or Physics. The graduate work culminates with the student completing a project or thesis in an area of science education which is applicable to the student's teaching. Faculty from the program and other departments form the committee which guides and evaluates each graduate student.

Admission to Graduate Standing: Conditionally Classified

University requirements include a baccalaureate from an accredited institution and a grade-point

average of at least 2.5 in the last 60 semester units attempted. For this program the baccalaureate must be in one of the sciences (biology, chemistry, geological sciences, physics) and/or related fields.

Graduate Standing: Classified

A student who meets the requirements for conditionally classified graduate standing, as well as the following requirements, may be granted classified standing upon the development of an approved study plan. Candidates must:

1. be science instructors or curriculum coordinators/ supervisors as evidenced by an appropriate credential certifying that they may teach in one of the science disciplines below the collegiate level;
2. declare an area of teaching specialization (the graduate committee for all candidates will include instructors from the academic departments of the student's teaching specialty or emphasis);
3. take a diagnostic examination prior to classification in the declared areas of teaching specialty (the purpose of this examination is to aid advisers in recommending appropriate science course work, if areas of weakness are apparent. Course work as designated by coadvisers will be required prior to taking more advanced course work. Such course work will not count toward the 30-unit degree requirement);
4. have adequate science preparation; and
5. have a minimum grade-point average of 2.5 in science prerequisites.

Study Plan

The degree program consists of 30 units of upper-division or graduate course work within the School of Natural Science and Mathematics, of which at least half must be 500-level, and which must be completed with a grade-point average of 3.0 or better.

1. 15 units will be in the basic sciences, in upper-division and graduate courses. At least nine units will be taken in one of the following: biology, chemistry, computer science, geological sciences or physics.
2. 15 units will be in science education with the following requirements:

Core courses

- 550 Theoretical Designs in Science Education (3)
- 552 Review of Research in Science Education (3)
(This course meets the Graduate Level Writing Requirement.)
- 554 Issues in Science Education (3)
Culminating Experience
- 598 Thesis (6) or
- 597 Project (3) and
- 599 Independent Graduate Research (3)

For further information and advisement, consult the graduate program adviser or coordinator of the Science Education Program.

Science Education Courses

310 Physical Science Concepts (3)

Prerequisite: completion of general education natural science requirements or consent of instructor. For prospective elementary school teachers. Observing, classifying, recognizing space-time relations, measuring, inferring, formulating hypotheses, controlling variables and interpreting data. (2 hours lecture, 2 hours activity)

312 Processes of Science (3)

Prerequisites: 15 units of science coursework including biological and physical sciences. Methodologies, logical procedures and explanatory systems that characterize the various natural sciences. The role of the science educator. (2 hours lecture, 1 hour activity, 1 hour TBA)

434 Elementary School Science—New Curricula (3)

Prerequisite: Science Ed 310 or equivalent or consent of instructor. The content, philosophy and techniques of new curricula for elementary science courses. (2 hours lecture, 2 hours activity) (Fee required)

442 Teaching Science in the Secondary School (3)

Prerequisite: appropriate education and science education course work for credential. Objectives, methods, and materials including audiovisual instruction for teaching science. Required before student teaching for candidates for the single subject teaching credential in either the life sciences or the physical sciences. (2 hours lecture, 2 hours activity)

449E Externship in Secondary Teaching (3)

(See description under Secondary Education)

449I Internship in Secondary Teaching (10)

Prerequisite: Science Education 312 (may be taken concurrently) (See description under Secondary Education)

449S Seminar in Secondary Teaching (2)

(See description under Secondary Education)

453 Life Science Concepts (3)

Prerequisite: completion of general education requirements or consent of instructor. Biological principles using science processes appropriate for elementary teachers (2 hours lecture, 2 hours activity)

(Offered by the Department of Geological Sciences and the Department of Geography) See departmental descriptions for the following courses:

Geological Sciences

130 Earth's Atmosphere (3)

340 General Meteorology (3)

410 Special Topics in Geological Sciences—Dynamic and Physical Meteorology (2-3)

Geography

290g Analysis of Weather Maps (1)

323 Weather and Climate (3)

422 Regional Climatology (3)

479A,B Naturalist Internship (3,3)

Prerequisite: consent of instructor. Supervised in-service training at the Tucker Wildlife Sanctuary. For the prospective biological science teacher, communications major and others interested.

499 Independent Study (1-3)

Special topic in science education, selected in consultation with and completed under supervision of the instructor. May be repeated for credit.

550 Theoretical Designs in Science Education (3)

Prerequisites: B.A. degree in a science area, plus a teaching credential in that science subject matter. The designs, models, assumptions of the many national curriculum projects in science at the secondary level. The successes and failures of these projects. (3 hours lecture)

552 Review of Research in Science Education (3)

Prerequisites: graduate standing. A review of relevant literature requisite to individual research design and execution of appropriate experimental or observational procedures to test hypotheses concerning problems in science education. (3 hours lecture/discussion format; inquiry mode)

554 Issues in Science Education (3)

Prerequisite: Graduate standing. Major contemporary issues in science education. (3 hours lecture)

597 Project (3)

Prerequisite: advancement to candidacy and an appointed thesis committee. The selection, investigation and written presentation of a nonexperimental project in science education. Concurrent enrollment in 599 (3 units) is also required.

598 Thesis (6)

Prerequisite: advancement to candidacy and an appointed thesis committee. The selection, investigation and written presentation of an experimental problem in science education.

599 Independent Graduate Research (1-2-3)

Graduate student research in a specific area of science education. May be repeated for credit.

Special Programs

Astronomy

(Offered by the Department of Physics)

See departmental descriptions for the following courses:

Physics

- 200 Introduction to Astronomy (4)
- 414 Physics of the Solar System (3)

Earth Science

(See Department of Geological Sciences)

Geochemistry

(Offered by the Department of Chemistry and Biochemistry and the Department of Geological Sciences as a Master of Science in Chemistry, Geochemistry Emphasis.)

See requirements under Chemistry, and departmental course descriptions.

Marine Sciences

(Offered by the Department of Biological Science and the Department of Geological Sciences) See departmental course descriptions for the following courses:

Biological Science

- 319 Marine Biology (3)
- 319L Marine Biology Lab (1)
- 406 Biometry (4)
- 419 Marine Ecology (3)
- 419L Marine Ecology Lab (1)
- 446 Phycology (4)
- 461 Invertebrate Zoology (4)
- 475 Ichthyology (4)
- 491 Advanced Topics in Ocean Studies (1-4)
- 491L Laboratory Topics in Ocean Studies (1-2)

Geological Sciences

- 333 Oceanography (3)
- 410 Special Topics in Geological Sciences—Marine Geology (2-3)
- 431 Physical Oceanography (3)

For further information and advisement, consult the graduate program adviser or coordinator of the Science Education Program.

Medical Biology

(Offered by the Department of Biological Science and the Department of Chemistry and Biochemistry) See departmental course descriptions for the following courses:

Biological Science

- 323 Biology of Sexually Transmitted Diseases (STD) (1)
- 361 Human Anatomy (4)
- 362 Mammalian Physiology (4)
- 406 Biometry (4)
- 423 Pathogenic Bacteriology (4)
- 424 Immunology (4)
- 425 Pathobiology (4)
- 426 Virology (3)
- 427 Medical Mycology/Protozoology (4)
- 428 Biology of Cancer (3)
- 462 Biomedical Parasitology (4)
- 468 Comparative Animal Physiology (4)
- 469 Hematology (4)
- 520 Seminar in Medical Technology (3)
- 521 Advanced Clinical Microbiology (3)
- 528 Clinical Immunology (3)
- 550 Medical Laboratory Operations (3)
- 552 Instrumentation and Quality Assurance in the Clinical Laboratory (2)
- 562 Human Physiology for Medical Technologists (3)
- 564 Clinical Pathology (2)
- 569 Advanced Clinical Hematology (2)

Chemistry

- 312 Survey of Analytical Chemistry (4)
- 421A,B Biological Chemistry (3,3)
- 422A,B General Biochemistry Laboratory (2,2)
- 430 Clinical Chemistry (4)

Meteorology

(Offered by the Department of Geological Sciences and the Department of Geography) See departmental descriptions for the following courses:

Geological Sciences

- 140 Earth's Atmosphere (3)
- 340 General Meteorology (3)
- 410 Special Topics in Geological Sciences—Dynamic and Physical Meteorology (2-3)

Geography

- 280g Analysis of Weather Maps (1)
- 323 Weather and Climate (3)
- 422 Regional Climatology (3)

Oceanography

(Offered by the Department of Biological Science, the Department of Geological Sciences and the Department of Geography) See department descriptions for the following courses:

Biological Science

- 319 Marine Biology (3)
- 319L Marine Biology Laboratory (1)
- 419 Marine Ecology (3)
- 419L Marine Ecology Lab (1)
- 446 Phycology (4)
- 475 Ichthyology (4)
- 491 Advanced Topics in Ocean Studies (1-4)
- 491L Laboratory Topics in Ocean Studies (1-2)

Geological Sciences

- 333 Oceanography (3)
- 410 Special Topics in Geological Sciences—Marine Geology (2-3)
- 431 Physical Oceanography (3)

Geography

- 349C The Oceans (1)
- 349D The Ocean Floors (1)
- 426 Man and the Coastal Environment (3)

Physical Science

(Offered by the Department of Chemistry and Biochemistry and the Department of Physics)

100 Man and His Physical Environment (4)

Designed for non-science majors. Scientific activities which have resulted in major modification of the environment. Predicting trends and suggesting alternatives. Energy; natural laws; transportation; population; waste disposal. Threats to survival. (Same as Physics 100)

104 Science and Public Policy (1)

The mission of science. Cultural vs. practical science. Comparative and ideal studies of science management. Technological compulsion, injection of expertise, demystification, representation of the public interest, overquantification, reliability of expertise. International science. Nuclear energy, power, military uses, priorities, consumerism.

Faculty and Administration 1986—87

(Year in parentheses indicates date of
appointment
as a full-time member of the faculty.)

- ABDELWAHED, FAROUK H. (1973),
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- BREM, GERALD F. (1976),**
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- BUCHMAN, EDWIN O. (1968),**
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- BUCK, CHARLES W. (1964),**
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- BUCK J. VINCENT (1974),**
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- BURK, JACK H. (1971),
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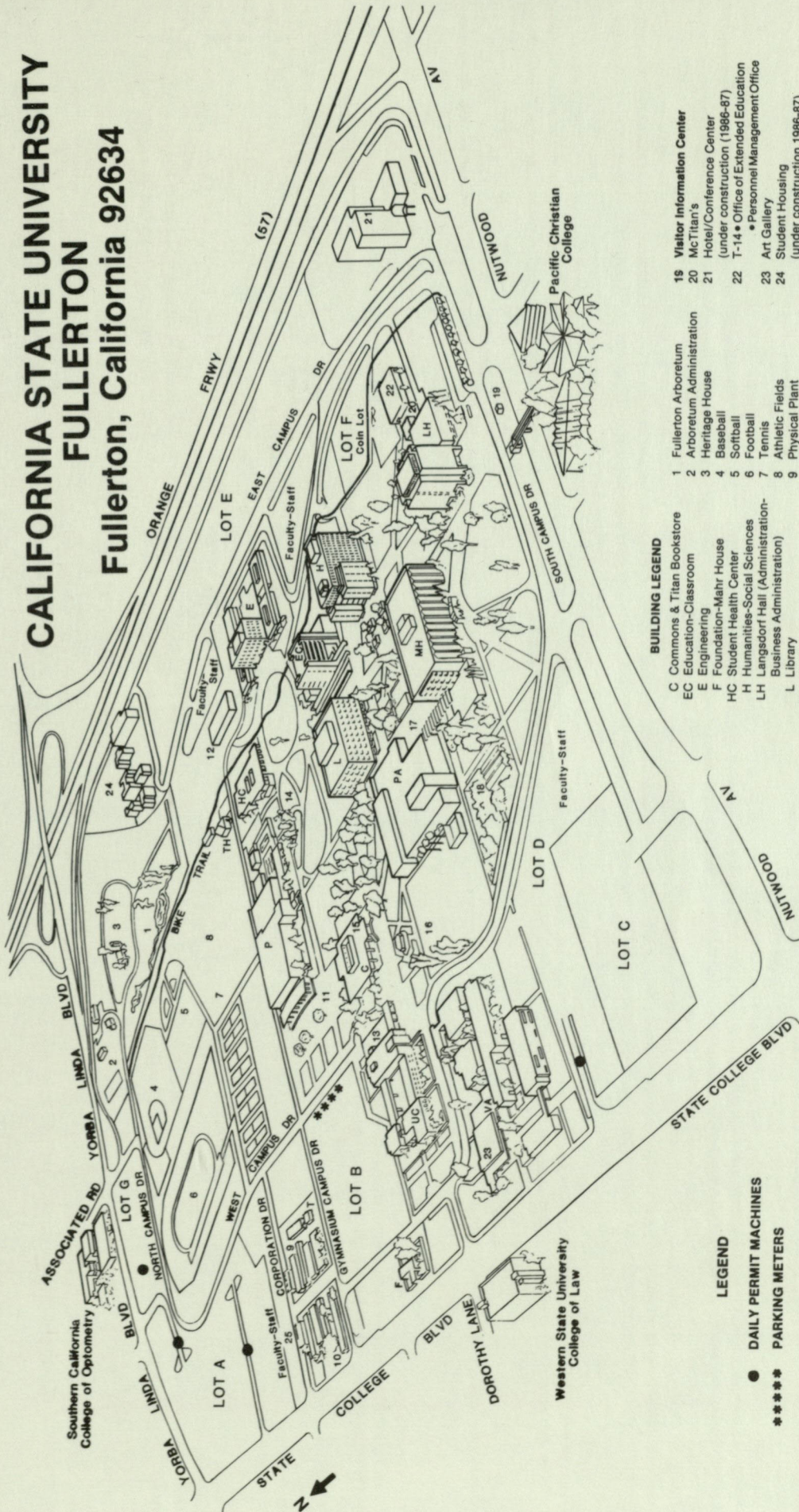
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CALIFORNIA STATE UNIVERSITY FULLERTON

Fullerton, California 92634



BUILDING LEGEND

- C Commons & Titan Bookstore
- EC Education-Classroom
- E Engineering
- F Foundation-Mahr House
- HC Student Health Center
- H Humanities-Social Sciences
- LH Langsdorf Hall (Administration-Business Administration)
- L Library
- MH McCarthy Hall
- PA Performing Arts
- P Physical Education
- T Temporary
- TH Titan House
- UC University Center
- VA Visual Arts

LEGEND

- DAILY PERMIT MACHINES
- ***** PARKING METERS

- 1 Fullerton Arboretum
- 2 Arboretum Administration
- 3 Heritage House
- 4 Baseball
- 5 Softball
- 6 Football
- 7 Tennis
- 8 Athletic Fields
- 9 Physical Plant
- 10 Public Safety
- 11 Gymnasium
- 12 Gerontology Center (Site)
- 13 Automatic Tellers
- 14 Memorial Grove
- 15 University Club
- 16 Sound Stage
- 17 Little Theatre & Recital Hall
- 18 Greenhouse
- 19 Visitor Information Center
- 20 McTitan's
- 21 Hotel/Conference Center (under construction (1986-87))
- 22 T-14 • Office of Extended Education • Personnel Management Office
- 23 Art Gallery
- 24 Student Housing (under construction 1986-87)
- 25 Children's Center
- Lot A - decal or daily permit required
- Lot B - decal required; one-hour meters
- Lot C - decal required
- Lot D - Faculty-Staff decal required
- Lot E - decal required
- Lot F - coin parking (75¢ per exit) in south lot
- Lot G - decal required (1986-87)



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